Clinical Lecture
ON
ATAXIC PARAPLEGIA.

Delivered at University College Hospital, Feb. 23rd, 1886,

BY W. R. GOWERS, M.D., F.R.C.P.,
ASSISTANT PROFESSOR OF CLINICAL MEDICINE.

(*Concluded from page 3.*)

THESE lesions enable us to understand the origin of the symptoms, at any rate in part. As we have seen, the symptoms are twofold, defect of coördination and defect of power. The lesion is also twofold, in the posterior and in the lateral columns. We must ascribe the incoördination to the disease of the posterior columns. We know that in tabes, ataxy is often the result of their degeneration. If there is a difference between the two maladies in the symptoms produced by the disease of the posterior columns, there is also a difference in the lesion. We must consider these differences in some detail, for we can only understand the origin of the incoördination in ataxic paraplegia by the light of its origin in tabes. What, then, is the mechanism of tabetic ataxy? It is easy to obtain some answer to the question; it is difficult, perhaps impossible, to obtain a complete answer. The chief mechanism is probably the disease of the sensory muscle nerves. The evidence of this is that tabetic ataxy may be due to disease of the peripheral nerves when the spinal cord is unaffected; that it is not due to disease of the cutaneous nerves, and therefore it must be due in such cases to disease of the muscle nerves. It is probable that a very slight affection of these nerves abolishes the knee-jerk, a greater degree causes ataxy, and a still greater degree is required to render the muscles insensitive to pressure and tension. We may sometimes observe a relation between the insensitiveness of the muscles and the degree of incoördination. In a patient, for instance, with much greater ataxy in the right leg than in the left, I found that the muscles of the right leg were insensitive to forcible traction, which caused a keen sensation in the left leg, cutaneous sensibility being equal in the two. There are two ways by which disease of these nerves may disturb coördination. First, it must abolish whatever muscle-reflex action occurs and influences muscular action; and, secondly, it must interrupt the connexion of the muscles with the cerebellum. There is reason to believe that the direct cerebellar tract is the path from the sensory muscle nerves of the lower trunk muscles. It is probable that the fibres of the posterior median column continue the afferent path from other muscles to the cerebellum. Between the grey matter of the post-pyramidal nucleus of the medulla (in which these fibres end) and the cerebellum there is an extensive connexion. The centripetal impulses which traverse these fibres may influence cerebellar coördination, and influence conceptions of posture, without giving rise to sensations comparable to those from the skin. There is, moreover, another possible mechanism. When the posterior columns are extensively sclerosed there must be considerable damage to the short fibres which connect the posterior grey matter at adjacent levels. It is possible that this deranges coördination. I may remind you, in passing, that this is the oldest of all theories of the mechanism of ataxy, being that put forward by the distinguished English physician, Dr. Todd, to whom, if to anyone, belongs the credit of the discovery of tabes. He believed that such association of adjacent parts of the cord was the chief function of the posterior columns, and inferred therefore that in locomotor ataxy the posterior columns would be found diseased, and he subsequently verified his inference by demonstrating the lesion of these columns in two cases. Eight years after the publication of Todd's opinions and facts—viz., in 1885—the theory that the ataxy was due to muscular anæsthesia was put forward by Dr. Russell Reynolds, and one of his statements is worth quoting, on account of the sagacious foresight of the latest conclusions of pathology: "It appears most probable that the centripetal tract of fibres is affected, and that the locality of the lesion is very variable." In ataxic paraplegia there is every reason to believe that the sensory nerves are unaffected in their peripheral parts, and in the lumbar region of the cord the sclerosis is so slight in the root zone that they probably escape there also. But higher up the cord the sclerosis extends through part at least of the posterior median column, and in some cases the direct cerebellar tracts have been diseased. Thus, although the muscle reflex arc is intact, the path from the muscles to the cerebellum must be in some degree interrupted; and there are other facts, which I have not time now to mention, which make it probable that this interruption is more effective in disturbing coördination than is that of the muscle-reflex arc, and therefore that, wherever the disease is situated, whether in the nerves or the cord, it is by the arrest of the impressions that should guide cerebellar coördination that ataxy is chiefly produced. But the locality of the lesion of the centripetal path has one important effect. If it is in the nerves or root fibres, it arrests the muscle-reflex action on which the knee-jerk depends; if it is higher up the cord, it leaves this action unimpaired, and free to become increased under the influence of any other morbid process in the cord which tends to cause such increase. Hence we can understand the persistence of the knee-jerk in spite of the ataxy.

Let us turn now to the second element in the symptoms, the muscular weakness. Loss of power, with increased myotatic irritability, and ultimately tonic spasm, are the characteristics of disease of the pyramidal tracts in the spinal cord. The visible sclerosis in the lateral columns always involves these tracts in some degree, and has been greater on the side of the greatest weakness; hence it seems a sufficient explanation of the symptoms of this second class. There is, however, one difficulty. In some cases in which the paralysis of the legs has been great the disease of the lateral columns has been very slight. Westphal has especially called attention to this discrepancy, and has discussed at some length the question whether the loss of power could be of peripheral origin, rejecting the theory, however, as absolutely inconsistent with the symptoms. I think that the discrepancy is susceptible of explanation, but to make this clear to you I must again diverge, for a moment, to more general considerations.

It will enable us to obtain much clearer conceptions of many facts of disease if we regard the motor path, which extends from the motor cortex of the brain to the muscles, as consisting of two segments, an upper and lower, each of which is similar in its component parts. The upper segment consists first of the motor nerve cell in the cortex of the brain; secondly, of the pyramidal fibre proceeding from that nerve cell, and extending through the internal capsule, the anterior pyramids of the medulla, and the pyramidal tract of the spinal cord; and thirdly, of the termination of the fibre in the grey matter of the cord. The lower segment consists of, first, the motor ganglion cell of the cord; secondly, the motor nerve fibre which extends through the motor nerve root, and the mixed nerve to the muscle; and, thirdly, the terminal ramification of the fibre in the muscle. It will complete the analogy between the two segments if we reflect that the upper segment must terminate within the grey matter of the cord, in a ramification analogous to that in which the lower segment ends within the muscle. The evidence of such a terminal ramification of the upper segment is twofold. In the first place, the fibres of the anterior roots are more numerous than the fibres of the pyramidal tracts, and hence each of the latter must be connected with more than one of the motor nerve cells. Moreover, the only undivided process of each ganglion cell of the cord is that which constitutes the axis cylinder of a root fibre; the other processes divide and subdivide in the spongy network of the grey substance; and it must be through these and this spongy network that the connexion with the pyramidal fibres is established. This also involves a ramification of the pyramidal fibres. Note next that the symptoms produced by disease of the upper or lower segment of the motor path are very different, but the symptoms are just the same whatever part of each segment is diseased. It is the same when the terminal ramification is diseased as when the cell of origin is destroyed or the fibre divided. We are familiar with this in the case of the lower segment, but it must be equally true of the upper segment. Disease of the terminal ramification in the grey matter will cause

all the symptoms of lateral sclerosis. Further, the axis-cylinders of the nerve fibres of each segment are the prolonged processes of the nerve cells from which they spring—that of the upper segment of the pyramidal cell of the cortex, that of the lower segment of the ganglion cell of the cord. The nerve fibres depend for their vitality on the influence of these cells, and perish when separated. It may reasonably be assumed that the nutritional stability of the fibre diminishes the greater the distance from the cell on which it depends, and that it is lowest in the terminal ramification of each segment. In the lower segment multiple degenerative neuritis is most intense at the periphery, and the degenerated nerve fibres become fewer as we examine the nerves higher up. If there were a corresponding disease of the upper segment, the most extensive degeneration—that of the terminal ramification—would probably escape detection, because it cannot be identified among the numerous structures of the spongy substance; but the disease of the fibres would be traceable in the lateral columns, and would be less than that of the termination, and would lessen as we ascend the cord. So far as the lateral columns are concerned, this is the condition found in many cases of ataxic paraplegia. Hence it is a reasonable assumption that, when the visible degeneration in the pyramidal tracts is insufficient to explain the paralysis, and when it increases as we pass down the cord, there is a greater amount of disease in the terminal ramification of these fibres in the grey matter. We have seen that the sclerosis is often not limited to the lateral tracts. Whether this extension is because it is in part a random process, or whether it is because there is a compound system degeneration—i.e., a degeneration of more than one system of fibres,—we are at present unable to say.

Thus, gentlemen, the pathological facts, if meagre, enable us to understand the origin of the symptoms in their positive and negative characters, the ataxy and weakness, the preservation of the knee-jerk and its excess with clonus, the absence of anæsthesia, and the slightness of the pains. It is the remarkable clinical uniformity of the symptoms that is the justification for the distinction of the disease. This justification is not annulled by the fact that cases now and then occur which are intermediate between this and other well-defined diseases. We classify by types, but Nature often reminds us that she does not separate where we distinguish. In true tabes there is sometimes loss of power from the addition of disease of the lateral columns to that of the posterior. But these cases, for the most part, emphasise the distinction of this disease from tabes, for the knee-jerk, once lost, never returns because the lateral columns are sclerosed, and it is remarkable with what constancy the knee-jerk persists to the last in ataxic paraplegia. If there is no tendency at the outset to the interruption of the reflex arc, there is none at a later period.

The diseases from which ataxic paraplegia has to be distinguished differ according to the stage of the disease at which the diagnostic problem presents itself. The dominant symptom in the early period is the incoördination; in the later period, the spastic palsy. Hence the disease in the early stage is liable to be confounded with true locomotor ataxy. In discussing the relation of the two diseases we have already considered their differences. Of these the most important is the condition of the knee-jerk, which is lost in the one, excessive in the other. In the rare cases of early tabes in which it is not lost, it is never increased. The presence of a clonus is also exclusive of pure tabes; and so also is the extensor spasm, of which we may often observe some indications while power is still only slightly impaired. Other differences may confirm the diagnosis, but are never necessary to make it, and are indeed not uniform enough to be alone conclusive. In the state of sensation on the limbs, in the occurrence of or freedom from pains, and in the action of the iris, the two diseases present a contrast in the vast majority of cases, although not invariably. From primary spastic paraplegia the diagnosis depends on the presence of incoördination, or in a history of it if voluntary power has become too slight to be susceptible of derangement. Ataxic paraplegia is spastic paraplegia, *plus* incoördination. If the ataxy is considerable, as it often is, the distinction is easy enough, for experience shows that it is chiefly with tabes that such cases are confounded. The so-called "hereditary ataxy" presents a close resemblance to ataxic paraplegia, and is, indeed, intermediate between this disease and true tabes. It is distinguished by its occurrence in several members of the same family, by the common loss of the knee-jerk, and by the presence of nystagmus and of some impairment of articulation.

The greatest diagnostic difficulty is presented by cases which have subacute onset, and the distinction from a local myelitis involving posterior and lateral columns may be very difficult. It depends chiefly on the progressive tendency of the symptoms, which contrast with the regressive tendency of myelitis. It is possible that when there is a degenerative tendency, a focal myelitis may set up a progressive degeneration in the columns concerned, as it certainly may set up a degeneration limited to the posterior columns. A tumour in the middle lobe of the cerebellum may cause unsteadiness closely resembling that of some cases of ataxic paraplegia, and it may also cause weakness of the legs with increased knee-jerk, from the pressure on the pyramidal fibres as they pass through the pons. In such cases, indeed, we probably have the two elements of the disease, although produced in a different manner by lesions in a different position. We have a degeneration of the lateral columns which is secondary instead of primary, and we have disease of the coördinating centre instead of interruption of the path to it. But the weakness in the legs is never great in cerebellar tumour, and other special symptoms are never absent. Occipital headache, vomiting, and optic neuritis are present in most cases, and all are never absent; while in a case in which the pons is compressed, some cranial nerves are usually also damaged.

So far as the prospect of recovery is concerned, the prognosis in ataxic paraplegia is unfavourable. In a few cases I have seen distinct improvement. Arrest is more frequently obtained, but in the majority of cases the progressive tendency of the disease baffles all attempts to check it. The progress of most cases is, however, very slow—far slower than might be inferred from the history of recorded fatal cases; and the danger to life is small.

The treatment of ataxic paraplegia is, in the main, that common to all chronic diseases of the spinal cord. The first important measure is to exclude, as far as possible, from the patient's life all those influences that are capable of producing the disease or of contributing to its production, and which therefore will tend to augment it, whether, in the individual case, they were or were not its cause. The most important of these are four: exposure to cold, exhausting fatigue, falls, and excess, alcoholic or sexual. Walking may be permitted, but it should stop short of fatigue, or at least of more fatigue than a brief rest will remove. If the disease is increasing rapidly, or is recent, and indeed in any progressive case, absolute rest for a week or two may be tried. If it seems beneficial it may be continued for a longer time, or, what is preferable, it may be repeated in a few weeks. If a patient is kept at rest continuously for many weeks, his muscles may become weaker from the mere disuse, and then he may be long in regaining his former level of strength. Drugs are less frequently useful in this disease than in pure tabes, in which their influence is often striking. I am now speaking of the so-called "nervine" remedies, not of anti-syphilitic drugs, which, as a rule, fail to exert any influence over the nerve degenerations that follow syphilis, save in rare instances, chiefly of rapid course and succeeding the venereal disease at a comparatively short interval. This is true also of ataxic paraplegia, but, as we have seen, there is not often any history of syphilis to suggest such treatment. Very small doses of mercury, however, stand on a different footing from large doses and from iodide. They seem to have a tonic influence in the subjects of old syphilis, and during their administration anæmia has been proved to lessen by an observed increase in the number of corpuscles in the blood. Of other drugs, arsenic is that which most frequently seems to do good. Some of my patients who improved under its use took at the same time Calabar bean and belladonna. Quinine may also be given with some apparent advantage. Nux vomica you may give in the early stage, but when spasm is developed both nux vomica and strychnia are better avoided on account of their tendency to increase reflex action and the tonic spasm. The latter, when it becomes great, is a very troublesome symptom, and one over which unfortunately drugs have but little influence. It is distinctly lessened by the process of rubbing the muscles, and after the rubbing is over the spasm remains less for a time, and I have found this process a very distinct help in the treatment of all forms of spastic paraplegia. Upward rubbing seems to have most influence on the spasm. If the patient's constitutional condition permits it, the rubbing may with advantage be combined

with diaphoresis in the Turkish bath. In more than one case the effect of this treatment has been marked, and has distinctly contributed to the very considerable and permanent improvement that was obtained. Electricity is of little value in this disease. Faradaism should be avoided; the irritation of the sensory nerves increases the reflex action and augments the spasm. In several cases I have tried the voltaic current in various ways—applied to the limbs and to the spine, and to both—and in no case have I been able to satisfy myself that any benefit resulted from its use.

One other remark and I have done. Whenever there is retention of urine, or whenever the bladder is imperfectly emptied, the condition must be dealt with by appropriate local treatment. Remember that kidney disease, secondary to cystitis or to mere distension of the bladder, is a common cause of death in all diseases of the spinal cord. In ataxic paraplegia this danger, if not absolutely great, is relatively greater than in many other diseases, because other sources of danger to life, such as bedsores or interference with respiration, are insignificant. There is no doubt that this danger may to a large extent be obviated. I have not in any case, or in any disease, seen an evil result from the early and frequent use of the catheter, and I have known more than one patient die whose life might have been saved had residual urine been regularly removed and the bladder repeatedly washed out. I know patients who are now alive who would, I am sure, have died had this treatment not been adopted. The simple reflex incontinence in which the bladder is perfectly emptied from time to time calls for no interference.

ALBUMINOMETRY BY ESBACH'S TUBES.

By GEORGE JOHNSON, M.D., F.R.S.,
CONSULTING PHYSICIAN TO KING'S COLLEGE HOSPITAL; EMERITUS PROFESSOR OF CLINICAL MEDICINE.

I AM indebted to Mr. Blomfield's paper in THE LANCET of Jan. 23rd, 1886, for a knowlege of Dr. Esbach's method of albuminometry. After reading it I lost no time in obtaining one of the graduated tubes from MM. Brewer Frères, of 43, St. André-des-Arts, Paris; and Mr. E. Cetti, of 36, Brooke-street, Holborn, has made for me a number of tubes with exactly the same graduation. Having made numerous observations on urines containing variable proportions of albumen, I find the results so much more certain and satisfactory than those obtained by any other known method of clinical albuminometry, that I venture to recommend the general adoption of Esbach's method as an easy and accurate means of determining the actual amount of albumen in the urine.

Thinking, from my experience of picric acid as an albumen precipitant, that the addition of citric acid would be found unnecessary, I experimented with solutions of variable proportions of picric acid. First, I tried a saturated solution of picric acid (equal to 5·3 grains per ounce), testing the same albuminous urine with this and with Esbach's solution. The result was that in most instances the saturated solution of picric acid caused a firmer, and therefore less bulky, coagulum, so that the amount of albumen, as read off upon the scale, would appear to be slightly less than that shown with Esbach's reagent. I next tried a solution of picric acid in the same proportion as that contained in Esbach's solution—namely, 1 per cent., or 4·375 grains per ounce. This usually gave a less firm and more bulky coagulum than Esbach's reagent, and would therefore indicate an excess of albumen. Lastly, I experimented on numerous specimens with a solution of picric acid in the proportion of five grains to the ounce—intermediate, that is, between a saturated and a 1 per cent. solution; and the result is that this solution gives results practically identical with those obtained by Esbach's solution of picric with citric acid. The latter solution, on account of its excessive acidity, throws down uric acid more frequently and more copiously than the picric acid solution alone. In two specimens of albuminous urine Esbach's reagent gave so copious a precipitate of uric acid, as if not allowed for, would have led to an excessive estimate of the amount of albumen. The result, therefore, of numerous careful observations is that Esbach's solution of picric with citric acid and a simple five grains to the ounce solution of picric acid give practically identical and equally accurate results; but as the simple picric acid solution is more easily prepared and cheaper than Esbach's compound solution, it will probably be preferred by most practitioners. It is important to bear in mind that if the urine be neutral or alkaline it must be acidulated by acetic acid before the analysis is made.

To test the accuracy of Esbach's method, in one specimen the precipitate formed by Esbach's reagent and the five grains to the ounce picric acid solution having each indicated 1·1 gramme of albumen per litre, the two sediments were separately washed, dried, and weighed by my son, G. Stillingfleet Johnson, in the laboratory of King's College, and the calculated result in both sediments was 1·09 gramme per litre, a difference of only 1-100th of a gramme per litre from Esbach's result. It may be interesting to add that the slightly more dense and less bulky precipitate formed in the same specimen by the *saturated* solution of picric acid was found, when washed and dried, to have exactly the same weight as each of the other two sediments; thus showing that, although the bulk of the precipitate was less, the weight of the dried albumen was the same as that of the other two sediments.

The original account of Esbach's method is published in the *Bulletin Général de Thérapeutique Médicale et Chirurgicale*, tome xcviii., p. 497.

Mr. E. Cetti is now prepared to supply the accurately graduated tubes, with brief printed directions for their use, at little more than half the cost of obtaining them from Paris.

Savile-row, W.

A NOTE ON CYCLIC ALBUMINURIA.

By SIDNEY COUPLAND, M.D., F.R.C.P.,
PHYSICIAN TO THE MIDDLESEX HOSPITAL, AND LECTURER ON PRACTICAL MEDICINE.

THE following case belongs to the interesting class of albuminuria in the apparently healthy, to which Dr. Pavy so prominently drew attention at the Cardiff meeting of the British Medical Association, and again subsequently in the columns of THE LANCET (March 6th, 1886, p. 427). The case resembles those recorded by Dr. Pavy in the fact that albuminuria, to a greater or less extent, occurred once or more often diurnally; but there was less regularity in the period of its recurrence—it was rather "intermittent" than cyclical. The amount of albumen was estimated quantitatively by Esbach's method, of which Dr. Veale has published a full description (*British Medical Journal* 1884, vol. i., p. 898).[1]

Sarah S——, aged sixteen, in domestic service, an active, bright and intelligent brunette, rather undersized, but well-nourished and healthy-looking, not presenting any of the characters of renal disease, was admitted into the Middlesex Hospital on April 1st, 1886, on account of albuminuria. She had been seen a few days previously by Mr. Fardon, the resident medical officer, and at his request had brought a specimen of urine, which he found to be highly albuminous. But after her admission no trace of albumen could be detected, and the same negative result being obtained during the next two days, it was surmised that the previous appearance of albumen in the urine was accidental. On April 5th I handed over the charge of my wards for three weeks to my colleague, Dr. Biss, who, with these facts before him, suggested that the case was possibly one of cyclic albuminuria, and that the urine should be examined at intervals of three hours. This was done for the first time on April 10th, with the result that urine passed at 3 A.M. and 6 A.M. contained no albumen; at 9 A.M. a faint trace appeared, and there was a deposit of lithates; at 12 noon and 3 P.M., no albumen; at 6 P.M., a measurable quantity—viz., 0·3 per cent.; at 9 P.M., 0·06 per cent.; and at 12 midnight, no albumen.

Reverting now to the previous history of the patient, it

[1] The accuracy of this method whereby the number of grammes of albumen per litre of urine can be calculated was tested by Dr. Veale, and more recently by Dr. P. Guttmann (Berl. Klin. Wochenschrift, 1886, No. 8), the latter further showing that the precipitant used (viz., picric acid one part, citric acid two parts, water ninety-seven parts) is superior to other reagents for the purpose. The method has also been described by Mr. Blomfield (THE LANCET, 1886, vol. i., p. 183) and Dr Cruise (Dublin Journal of Med. Science, June, 1886, p. 499).

does not appear that she had ever had any serious illness, measles in childhood being the only occasion that she could recollect being ill. Two months previous to her being sent to the hospital she began to suffer from some pain in the back and legs and boils in the neck. But she declared herself as feeling quite well, and could not understand why she had been sent to the hospital at all. She was perhaps slightly anæmic, and the temperature on admission was 99·6°, but it fell to normal next day, and never rose above the normal subsequently. Menstruation was regular. She had no headache, slept well, and had a fair appetite. The lungs were healthy, but the cardiac sounds were abnormally loud and booming, the second sound being occasionally reduplicated. There was no evidence of enlargement of the heart. On April 4th she complained of slight pain in the back, with tenderness over the lumbar spine, but this entirely disappeared in two days, and she was allowed to get up.

TABLE I.

Time.	April 29th.	April 30th.	May 1st.	May 2nd.	May 3rd.
3 A.M.	0·0	0·0	0·0	0·0	—
6 A.M.	0·0	0·0	0·0	0·0	—
9 A.M.	0·0	0·0	0·08	—	0·03
12 noon	0·0	0·0	0·0	—	0·06
3 P.M.	0·08	0·05	0·0	0·05	Trace
6 P.M.	0·025	0·0	0·0	0·025	0·04
9 P.M.	0·1	0·0	0·0	—	Trace
12 midn.	0·0	0·0	0·0	—	0·0

The discovery of intermittent albuminuria on April 10th led to the repetition of the three-hourly examinations, with the result that at 9 P.M. on the 11th the urine contained 0·06 per cent. of albumen, and at 9 A.M. on the 12th there was a trace of albumen. Menstruation now commencing the observations were suspended for some days, the patient remaining apparently quite well, and assisting in the work of the ward. On April 29th and following days the urine was again, so far as possible, examined every three hours, with the results shown in Table I., the figures denoting the percentage of albumen in the specimens examined. During these days she was on fish diet and milk, but it is noteworthy that on May 3rd, when albumen appeared more abundantly, she was allowed an egg for breakfast. This meal is taken at 5.30 A.M., and although on the three following days the same addition was made to the diet it had no appreciable effect. (See Table II.) The specific gravity of the urine was high, ranging from 1026 to 1036; the urine was always acid, mostly clear, but occasionally depositing lithates. Sugar was never detected, nor blood, pus, or hæmoglobin; and microscopically there were neither casts, nor crystals of oxalates, nor uric acid. The albumen did not yield peptone reactions. The patient was "up" the whole day—i.e., rising at 5 A.M., breakfasting at 5.30, assisting in the ward till 7 A.M., then returning to bed until 11.30 A.M., when she remained up until 8 P.M. She seemed perfectly well, and never complained of fatigue.

During the next three weeks the urine was tested every four hours, so far as possible, but obviously there were occasions when no specimen could be obtained. The observations were made by my house-physician, Mr. T. H. Williams, and the results are given in Table II. One is struck by the variable character of the albuminuria, both as to time of its occurrence and the actual quantity of albumen discharged. Upon six days out of the twenty-three no albumen was found on any occasion of testing; and upon three of these days it must be noted that the patient was kept in bed all day; but that even this absolute rest did not suffice to wholly prevent the appearance of albumen is shown on May 14th, when a small but appreciable quantity was found in the specimen passed at noon. The effect of rest as opposed to activity in controlling the albuminuria—a point clearly brought out in Dr. Pavy's cases—is further shown in the fact that none of the urine passed at 4 A.M. ever contained any albumen, and only on two occasions was albumen present in that which was passed at midnight, four hours after the patient had been in bed, and once (viz., May 18th) this might be explained by the fact that no urine had been collected at 8 P.M. On the other hand, it was at 8 P.M.—i.e., at the close of a day of comparative activity—that albumen was most frequently found, and it is conceivable that the phenomena would be much more marked when the patient is about her ordinary duties than in the somewhat restrained life of a hospital ward. But we find that the albumen appeared occasionally at other times during the day—more often at 8 A.M., as well as, or independent of its appearance, at 8 P.M.; and occasionally it was present in one sample and absent from the next, to reappear in the following. Sometimes only a mere trace of albumen was present, and at other times quite an appreciable quantity.

TABLE II.

Date.	4 A.M.		8 A.M.		12 NOON.		4 P.M.		8 P.M.		12 MIDNIGHT.		Remarks.
	Specific gravity.	Percentage of albumen.	Specific gravity.	Percentage of albumen.	Specific gravity.	Percentage of albumen.	Specific gravity.	Percentage of albumen.	Specific gravity.	Percentage of albumen.	Specific gravity.	Percentage of albumen.	
May 4th	—	0·0	—	0·0	—	Trace	—	0·0	—	0·1	—	—	Took egg for breakfast, 5·30 A.M.
,, 5th	—	0·0	—	0·0	—	0·1	—	0·0	—	0·0	1030	0·0	Ditto.
,, 6th	1030	0·0	1035	Trace	1033	0·08	1035	0·0	1037	Trace	1035	0·0	Ditto.
,, 7th	1032	0·0	1027	0·0	1034	0·0	1028	0·0	1032	0·0	1035	0·0	In bed all day.
,, 8th	1036	0·0	1032	Trace	1030	0·0	—	—	1035	Trace	1028	0·0	—
,, 9th	1028	0·0	1030	0·3	1028	0·05	1030	0·1	1028	0·0	1026	0·0	—
,, 10th	1026	0·0	—	—	1025	0·05	—	—	1033	0·06	1033	0·0	—
,, 11th	1033	0·0	—	—	1015	0·0	—	—	1033	0·0	1032	0·0	—
,, 12th	1030	0·0	1030	0·05	1026	Trace	—	—	1035	0·05	1032	0·0	—
,, 13th	1031	0·0	1027	0·0	1015	0·0	—	—	1026	0·07	1030	0·0	—
,, 14th	1032	0·0	—	—	1026	0·02	—	—	—	—	1035	0·0	In bed all day.
,, 15th	1035	0·0	1030	0·04	1027	0·0	—	—	1032	0·13	—	—	Cold bath, 8.30 A.M.
,, 16th	1032	0·0	—	—	—	—	1030	0·0	—	—	1035	0·0	—
,, 17th	1035	0·0	—	—	1028	0·09	—	—	1035	0·25	1032	Trace	Cold bath.
,, 18th	1030	0·0	—	—	1025	0·0	—	—	—	—	—	0·06	Ditto.
,, 19th	—	—	1032	0·2	1026	0·0	—	—	1033	0·05	1026	0·0	—
,, 20th	1028	0·0	—	—	1026	Trace	—	—	1032	0·05	1028	0·0	—
,, 21st	1028	0·0	1025	0·0	1025	0·0	—	—	1032	0·0	1036	0·0	In bed all day
,, 22nd	1038	0·0	—	—	—	—	—	—	1035	0·15	1032	0·0	—
,, 23rd	1033	0·0	—	—	—	—	—	—	—	—	1026	0·0	—
,, 24th	1028	0·0	—	—	1020	0·0	—	—	1032	0·04	1028	0·0	—
,, 25th	1027	0·0	1018	0·0	1015	0·0	—	—	1018	0·0	1020	0·0	Cold bath; in bed all day.
,, 26th	1020	0·0	—	—	—	—	—	—	1028	0·06	1025	0·0	—

I have already alluded to the apparent influence of rest in preventing the appearance of the albuminuria. Of other possible controlling or exciting agents two only were investigated, and these not to the extent which might have been desired. Thus diet and time of taking food had practically no effect. She was placed on a diet of fish, beef-tea, and milk when admitted, and continued upon this diet until May 14th, when meat was given in place of fish. No effect was produced on the albuminuria by this change. I have already alluded to the somewhat negative result of adding an egg to the diet, but I must admit that more valuable evidence might have been gained had the diet been more

thoroughly changed for stated periods. Again, on four occasions a cold bath given at 8.30 A.M. produced no constant result; once only was albumen present in the urine first passed after the bath, and this in spite of the fact that on another occasion albumen was found in the urine passed just before the bath. So far, then, the case accords with those related by Dr. Pavy, in showing that the only constant factor preceding and accompanying, and probably influencing, the appearance of albuminuria is exercise.

From a study of Table II., it would appear that (excluding the four days on which the patient remained entirely in bed), as regards the time and quantity of albumen passed at different periods of the twenty-four hours, we have the following results: Urine passed at 4 A.M.; eighteen specimens examined, albumen invariably absent. Urine passed at 8 A.M.; nine specimens, albumen present in six, amounting on two occasions only to a trace, and after rest averaging 0·14 per cent. Urine passed at noon; fifteen specimens, in eight of which there was albumen, but on three of these occasions there had been no urine passed at 8 A.M.; on three occasions the quantity amounted to only a trace, and the mean amouut excreted on the other occasions was 0·065 per cent. Urine passed at 4 P.M.; only six specimens could be obtained, and one of these was albuminous. Urine passed at 8 P.M.; sixteen specimens, of which no fewer than thirteen contained albumen, which appeared on two days as a trace, the amount on the other days averaging nearly 0·1 per cent. Urine passed at midnight; seventeen specimens, two only containing albumen, and of these the specimen which had a measurable quantity (viz., 0·06 per cent.) was passed on a day when none had been collected at 8 P.M. Lastly, the high range of the specific gravity of these specimens of urine must be noted, this density being in no relation to the albumen, nor to the colour of the urine, which was mostly a pale-straw tint. Except on a few occasions, when there was an excess of lithates, the urine was quite clear and free from deposit. Sugar was not present whenever looked for; but it is right to add that it was not sought for as frequently as albumen was. Looking, then, to the concomitant characters of the urine, as well as the general condition of the patient, one cannot believe that there is any structural disease of the kidney, and can only conclude that the derangement is a functional one, unless one goes further and regards the occurrence of albuminuria in this instance as a purely physiological condition, an idiosyncrasy, which more individuals may possibly possess than we are aware of. It is instructive that, as the urine in hospital patients put up for examination is generally that which is passed in the early morning, the presence of "cyclic albuminuria" might easily be overlooked (as it was indeed in this case at first), since the abnormal characters rarely appear until after the subject has been taking exercise

MYXŒDEMA FOLLOWING UPON REMOVAL OF THE THYROID GLAND.

BY JAMES GORDON, B.A., M.D. EDIN.

THE following case has been under my observation for the past eleven years, and as special interest and importance attach to it in connexion with recent discussions I will give it in detail.

Mrs. A——, aged forty-two, a widow, who had a large goitre of several years' standing, not less than six, was operated upon by Professor Lister eleven years ago, and the entire thyroid gland completely excised. The operation as a piece of surgery was eminently successful, and the patient, so far as this point was concerned, made a good recovery. She accordingly returned home about the end of three months from the time she entered the hospital. When she left she was still weak and pallid, but the weakness and pallor appeared to herself and those concerned the natural result of an operation of such magnitude. Inquiry made subsequently, however, elicited the fact that even before she left the hospital she found her speech was affected, and that on reading aloud for a time she became hoarse. That she was correct in this, and that she had undergone some profound change besides that which the infliction of a great operation would produce, could be detected in her very appearance. Of this no better testimony could be adduced than her first interview with her mother, an aged woman, but possessed of all the keenness of her faculties. She was, on the day of her return, anxiously waiting for her daughter's arrival, and when Mrs. A—— stepped in, the mother inquired if "Marion was not come." The daughter replied, "Yes, Marion *has* come." The mother not recognising her daughter, and fearing she was a messenger sent with bad news about her, exclaimed, "Is Marion dead?" "No," she replied, "I am Marion myself." But the aged mother, not yet recognising her daughter, insisted: "You cannot be Marion, for you have neither Marion's *face* nor Marion's *voice*." This scene shows that already, at this early date, important alterations were produced in this woman's constitution, and that the origin of this sprang from the operation. Indeed it was a popular remark, made to her on every hand, that she was not recognised.

When first seen by me soon after her return home, her strangely altered appearance took me by surprise. Her face was pale, yet not the pallor of loss of blood—it was a sallow pasty paleness. It was swollen, especially about the eyes, the eyelids above and below presenting a waxy, transparent look. The lips were thick, swollen, and of a purple colour, and the expression of the face was lost and imbecile-like. The first thought suggested by her look was that kidney affection was present, but on hearing her speak I was struck with the alteration here. She spoke in an embarrassed manner, slowly, and with a nasal intonation. At this early date, then, there were already present the following symptoms: feeling of great weakness; feebleness in walking; face pale, sallow, pasty, and swollen; speech affected in the manner just described. The question of renal disease was tested. The urine was scanty, no albumen present, and nothing abnormal in its specific gravity. The heart sounds were feeble, but nothing otherwise abnormal existed; they might perhaps resemble the sounds of a dilated heart. Neither at this time nor at any time afterwards was there ever anything wrong found with the heart or kidneys; the latter throughout the course of the case exhibited the abnormality of a marked deficiency of secretion. Some days (especially when the bowels were constipated) very little urine was passed. A pint and a pint and a half were the common measures of the amount; it never exceeded or rarely amounted to two pints. There was feebly acid reaction; specific gravity 1025; phosphatic deposit.

In a short time additional symptoms developed, so that by the end of six months the patient began to display the following:—The swelling of the face and the œdematous condition of the eyelids were more marked; but at this time, as well as afterwards, this was subject to variation, being always greater in amount, for example, when the head was in a dependent position. There was no blush on the malar eminences, but the point of the nose displayed a pinkish hue. The fingers, backs of the hands, and wrists became swollen, coarse, and red-coloured. The fingers became more awkward and less useful at work; they fumbled in buttoning her dress, for instance, so that this operation took a long time, and in cold weather became almost impossible. She could not pick a small object from off the floor—she felt no pith in her hands or fingers; for instance, in washing the floor she found that cloth and hand rolled round together. Then she noticed that she lost sensation in her fingers. This was first observed in sewing; she found she could not feel the needle between her fingers—could not distinguish between a "darning" and a small fine needle; so that she was obliged to desist from this industry. Her feet swelled occasionally—i.e., either with too much walking or standing, or, on the other hand, when entirely sedentary. When the feet swelled they felt as if standing in a wet damp place. But she experienced abnormal sensations in her feet also at other times—e.g., when lying in bed. Her walk became feeble and staggering, like one drunk. She found herself apt to fall, and was always in fear of doing so. The least object, as the edge of a carpet, would cause her to tumble. Her limbs felt stiff and feeble, so that she could not lift them up to mount a high bed or carriage. Cold weather aggravated the weakness, as she called it, in her hands and feet. So, too, with respect to her speech—when exposed to cold she could hardly utter any word. She always felt cold even in the hottest weather. Her temperature was always subnormal—97°, 97·2°, 97·6°, and sometimes even below 97°; it scarcely ever reached 98°. When she made an effort to walk her best, as when she walked on the public road, she felt her head as if *nodding*. I have not myself observed

this point, but the patient described the condition as resembling that of one having the "shaking palsy." This feature apparently arose from weakness of the muscles of the neck, and the loss of voluntary power to coördinate their action. After a time—i.e., when the effort to do it well ceased—the phenomenon disappeared. Her tongue was somewhat large; she herself insisted that it was too large for her mouth, giving as a proof of this that she found it project beyond her teeth in the morning on waking. I cannot, however, say that it presented such extreme bulk whenever an examination of it was made by me. Her abdomen became large and bulky universally. This feature was marked at the earlier period of the history of the case, and seems to have annoyed the patient most. She felt ashamed to appear in public on account of it, lest it should be thought that she was pregnant. This increased bulk did not appear to me to depend so much on any underlying deposit in the abdominal cavity as on relaxation of the intestinal walls yielding to gaseous distension. Her skin became dry and rough, constantly throwing off a coarse furfuraceous desquamation, and even thick scales. Her hair began to fall off, and continued doing so for a period of four years, when at length the scalp became almost entirely bare, and at this stage shed large, coarse, thick scales. The eyebrows also became thin and scanty. The bowels were habitually constipated, never acting without laxative medicine. She feels a lightness and giddiness in stooping or in rising after stooping. On getting out of bed in the morning she had to be careful lest she fell; and similarly, in stooping to light the fire, she was obliged to rest on her knees, otherwise the giddiness would cause her to fall down. Her memory is much impaired, but she is not the least affected as to her intellectual faculties. She is peculiarly placid and self-possessed. Her expression and speech cause her to appear slow and stupid, but she is intelligent enough Her ideation may be slow, but it is quite clear and accurate. Having been previously shortsighted her vision is not consciously affected; there is no impairment of hearing or of sight, and no difficulty ever experienced in swallowing. Her menstrual functions continued unaffected, and was prolonged to the age of fifty. There is one point more to be noted—the patient herself drew attention to it—viz., that the least pressure on the skin left a livid mark behind, so that she was constantly ecchymosed about the hand.

Such was the assemblage of symptoms presented by this case. I say *was* presented (and in my details of the case, the past and the present are mingled together), for there is no doubt that at this moment the patient is so far improved that some of the symptoms have altogether disappeared, while of many others there is amelioration. For example, she has recovered sensation in her fingers, so that she is now able to sew. There is also less anæmia, and decidedly less œdema. Probably an atrophied condition of the subcutaneous tissue exists, but of this I am not sure. The hair has grown again, and, though not luxuriant, is a fair growth. The speech, too, is considerably improved. The amelioration in regard to these points have been, I may say, gradual and insensible. The patient remains but a wreck of what she was, this improved condition notwithstanding.

This case is evidently an example of the cachexia strumipriva of Dr. Kocher, of Berne—a deteriorated state of the system observed by him to follow upon the complete extirpation of the thyroid gland. It is equally manifest that it responds to all the essential clinical features of the disease studied in this country under the name of myxœdema. They are apparently identical pathological conditions. From the standpoint of the surgeon, who sees in the ablation of the thyroid gland the direct cause of the affection, it is justly styled the cachexia strumipriva. From the standpoint of the physician, whose attention was arrested by the swollen condition of the connective tissue from the abnormal development of mucin, the term myxœdema is applicable, inasmuch as this feature is thereby indicated. Dr. Ord, who was the first to make use of the name, was led to believe that this mucoid degeneration was the essential feature in the production of the various symptoms which accompany the disease. The terminal fibrils of the sensory nerves are, he thought, so padded by this mucoid jelly-like tissue that they are cut off from the stimuli of external impressions, and these being slowly received and transmitted to the cerebral centres, the latter are insulated from the natural stimulus of its healthy growth and suffer degeneration proportionally. On the same principle he explains the deficient mental growth in cretinism, and thereby seeks to establish the connexion between cretinism and myxœdema, first suggested by Sir Wm. Gull. This theory as originally set forth seems to have been so far modified, for similar connective tissue changes were also thought to occur in the cerebral centres, whereby deficient mental power results and slow response in the action of the muscles to the will—i.e., the myxœdematous condition occurring in the brain, gives rise to phenomena directly connected with affections of that organ. This hypertrophy of the connective tissue is, upon this theory, looked upon as independent of nervous influence, the nervous disorder being the result of this alteration of that tissue. The remarkable atrophy of the thyroid which obtains in this disease is similarly accounted for by these changes in the connective tissue; the hypertrophy, causing pressure and strangling of the glandular tissue, results in its atrophy. But the condition itself is not considered important in the etiology of the disease, and is on this view secondary, and in no way related as causative in the phenomena of the disease.

Theories based upon pathological lesions are apt to be narrow, and such it would appear to me is the case in regard to the subject now under consideration. That which is here under the guidance of pathological lesion put first ought to be placed last, and that which is last ought to occupy a first place in the sequence of the phenomena of this affection. In the light of the case which I have here reported, it would seem that the connexion of the thyroid gland is at any rate not unimportant, and that it occupies in relation to the various phases of the disease an early and intimate connexion. The gland is wholly removed, and straightway there follows the train of symptoms which have been detailed. There is, on the one hand, an experiment in which the removal of the gland initiates the train of symptoms which, grouped together, give the totality of symptoms which constitute the disease. On the other hand, we have clinical observation in regard to the affection in its idiopathic form, pointing out that there is frequently, if not always, an atrophied condition of the gland present. Therefore both experiment and clinical observation concentrate attention on the thyroid as having somehow an essential connexion with the causation of the pathological state.

That the operation of extirpating the gland may be followed by such consequences there can be no manner of doubt. This woman returned from the hospital completely metamorphosed, so that her identity was questioned. It is alleged that the cause is not in the mere ablation of the gland, but connected rather with certain injuries inflicted by the operation in that region. Accordingly, Baumgarten, of Berlin, suggests that by tying the inferior thyroid close to the gland the vessels supplying the larynx, trachea, and œsophagus are secure, the recurrent laryngeal is safer, and the cachexia less likely to occur. He further states that in those few cases in which some of the symptoms of the disease were present they entirely disappeared on the performance of tracheotomy. But in Mrs. A——'s case, in whom all the symptoms were typically developed, there never existed at any time any indication for tracheotomy from the involvement of the laryngeal. Others, again, deny altogether the fact of its occurrence. Thus Billroth has never seen, in a large number of cases of total excision, any of the symptoms of cachexia strumipriva described by Kocher. The reply to this is that, inasmuch as it has actually been found to occur in this case and others reported by Kocher, the burden of proving the negative is imposed upon him by observing and reporting on the subsequent state of each case operated upon. I have no doubt that if Sir Joseph Lister were asked as to this very case if he had observed anything of the nature of strumipriva after the operation, he would reply in the negative. Opportunity was not presented to him to ascertain the fact. So also it may be in the case of Billroth. Such was assuredly the case with Kocher himself, for it was only incidentally that the fact was first disclosed to him. On his attention having been drawn to the point, every case of complete excision subsequently examined by him showed signs of the disease except two, and these were found to have, the one a small accessory gland, the other a redevelopment of the goitre.

Special importance may be claimed for the case here reported, since it disposes of the criticism made at the Berlin Conference on Dr. Kocher's report of his cases. It was there alleged that the condition described by him was one which would have occurred, at any rate, independently of the excision of the gland, and that the enlarged thyroid was but a link in the chain of events already in progress—

in fact, a proof of the same,—and that they depended rather on the locality to which the patient belonged (one in which cretinism was prevalent) than on the fact of the extirpation of the goitre. The case of Mrs. A—— is a sufficient reply to that statement, for no such connexion can be instituted in her case. It must further be noted that my patient's case appears to go further and embrace more ground than any of those observed by Dr. Kocher. He thought, for example, that the cachexia was specially incidental to the young and growing, having seen only two above thirty. This woman's age was forty-two. Therefore it is not restricted to the growing age. From this fact, it may be inferred, on the other hand, that the thyroid must have other functions than those which it performs during the period of growth as an elaborator of the blood, with which function it is usually associated. That it has a general influence on nutrition in this way directly is readily accepted; but that its influence should be exerted indirectly through the nerve centres, though not in the meantime capable of being asserted, would appear probable. To limit its relation to nutrition as connected merely with that of the connective tissue is, it would seem to me, too narrow a view. It is not merely a dystrophy of the connective tissue, which is apparent in this cachexia. We find also the nutrition of the integumentary system affected. Indeed, I think that too much stress is laid upon this so-called œdema. Cases are reported in which the myxœdema is not excessive. In this case the condition, though present, was not by any means such as to constitute it the pathognomonic symptom of the disease. The more one became familiar with the case, the more clearly did the neurotic element in it strike the observer. At one time in this woman's case the impressions made on the sensory nerves were so completely lost that she could not sew, not being able to feel the needle between her fingers. Yet at this time there was not present that amount of mucoid padding adduced in explanation of the phenomenon. At the same time, as well as after this condition was recovered from, the nutrition of the integumentary system was markedly impaired. The skin was dry, coarse, and desquamating profusely, and the hair was falling off. The want of sensation gradually disappeared, and the growth of the hair by degrees also was restored, but assuredly the improvement in both these respects was in no way connected with the condition of the œdema. The position, therefore, of those who have surmised that the origin of the disease is central and not peripheral appears to coincide with the various manifestations presented by the case of Mrs. A——.

The connecting link between the thyroid and the assemblage of symptoms under review is at present veiled in obscurity. All that is aimed at by the above case is the contribution of a fact which bears on the gland as the portal through which the solution of the subject is probably to be approached. To show how it is related to the series of phenomena will necessitate that we should possess a fuller knowledge of the physiology of the gland itself. I cannot help thinking, however, that its action is in some way exerted through the sympathetic. Note has been made of the protuberant state of the abdomen and the habitual constipation. The enlarged state of the abdomen always seemed to me to be due in great measure to a relaxed (paralysed) state of the muscular fibres of the bowels, and their consequent yielding to the pressure of flatulence from within—a condition regulated by the sympathetic. The persistent constipation would be accounted for by the same cause. The abnormal temperature, too, points to some relation to the sympathetic. Further, while there was in Mrs. A——'s case a state of unyielding permanent œdema when at its worst, there was also an amount which seemed to vary, such as might arise from the state of the capillaries—a condition likewise which would point to some share in the phenomena on the part of the sympathetic. Does the thyroid gland stand in some direct relation to the great vaso-motor centre of the sympathetic situate in the medulla oblongata? It has always seemed to me that in this cachexia in connexion with the thyroid gland we may possess a parallel to what obtains in Addison's disease, where a profound cachexia is induced in connexion with disease of the supra-renal capsules. It would appear to me of interest to note this, seeing that the mystery of this disease turns upon its relation to those glands which, while they are understood to perform the function of blood glands like the thyroid, are also supposed by many to have some intimate and intricate connexion with the sympathetic system of nerves—if not also of the cerebro-spinal—forming part thereof. As bearing on this point, I may fitly advert to the attention which the special innervation of the thyroid has attracted. In Robin's *Journal de l'Anatomie*, 1875, the great number of nerve filaments with which it is furnished is commented upon. It is there pointed out that these are out of the due proportion requisite of vaso-motors for the supply of the large number of blood-vessels which the gland contains; and it is believed that many of these fibres are sensory. It is stated that small islets of the gland substance are surrounded by plexuses of these nerves, and that the branches passing to and from the gland maintain a telegraphic connexion between these plexuses and the cerebro-spinal axis; while within the gland itself there exists an independent system of telegraphy, the stations being represented by numerous microscopic ganglia, with connecting branches, which do not pass outside the gland. These anatomical minutiæ show that by the structure of the gland it is fitted to exercise special functional relations to the nervous centre; but how they may be utilised in connexion with the question now under discussion awaits solution at the hands of those specially conversant with this department of science. The above are crude suggestions merely.

East Linton, N.B.

FOUR CASES OF

CHRONIC INFLAMMATORY DISEASE OF THE UTERINE APPENDAGES.[1]

BY LAWSON TAIT, F.R.C.S.

MRS. M. F——, aged twenty-eight, a patient in the St. Luke's Home, Edinburgh, under Dr. Halliday Croom, was seen by me on December 18th, 1885, when Dr. Croom and the patient gave me the following history. She was married when about twenty years of age, and within a year had a child with an extremely severe labour, and a long lingering convalescence. She has never been well since that confinement, there having existed marked dyspareunia, which has increased rather than improved. She has had regular and extremely profuse menstruation accompanied with intense pain, that pain being worse for some time before the onset of the period. She has had more or less intense intermenstrual pain excited by movement, and was made much worse by either standing or walking. For years she has been totally incapacitated from performing her domestic duties. In general appearance she was pale and anæmic, with a suffering and anxious expression of countenance; and she had been the round of the hospitals and specialists in Edinburgh, with a uniform failure in obtaining any kind of relief. On examination the uterus was not very large, and it was distinctly retroverted and fixed in its position, and any attempt to replace it gave rise to considerable pain. On each side the general matting could be felt, though no distinct tumour could be made out. The opinion I gave was that the whole contents were matted together, the origin of the condition having been a peremetric attack at the time of the labour; that probably one or other of the tubes was occluded, and that no amount of treatment short of removal of the appendages and the arrest of menstruation would give any satisfactory result. As this conclusion had been previously arrived at by Dr. Halliday Croom, there was no difficulty in making up our minds to it, and therefore on December 19th I operated in the presence of Dr. Halliday Croom, Professors Simpson and Chiene, Dr. Keiller, Dr. Angus Macdonald, Dr. Hart, Dr. Barbour, and Dr. Brewis. I found, as usual in such cases, that the omentum was glued on over the pelvis, and that what operation was done had to be performed through an aperture made to reach the organs. The pelvic viscera was so matted together that it was with difficulty the fundus uteri could be identified, but when this was accomplished it was not difficult to trace the ovaries and tubes first on the one side and then on the other, but a great deal of manipulation was required to detach them. Finally, after a great deal of trouble, they were secured, the pedicles tied by the Staffordshire knot, and the wound, an inch and a half in length, was closed. No drainage-tube was used.

The following letter, dated March 2nd, 1886, was received

[1] Read at the Midland Medical Society, March 3rd, 1886.

from Dr. Halliday Croom giving the further progress of the case: "The patient had no rise of temperature or any bad symptom whatever. She had a perfectly uninterrupted recovery. When I saw her after the operation I was struck by the change in her appearance. Her pinched, suffering look had gone. Her face was round, of good colour, and looked well and cheerful—very different from the appearance she presented when you and I saw her in December last. She still has some pain in her pelvis, especially on exertion; but it is not continuous as it used to be, nor does it interfere with her work, or prevent her enjoying her life, which for seven years past has been a burden. She has not menstruated since the operation, but has some leucorrhœa."

When the appendages were removed and examined by the naked eye, no one, unless greatly experienced in such pathological appearances, could have detected much the matter with them. The tubes were small and atrophied, and the ovaries were apparently normal in size and appearance; the moment, however, they were put in fluid, it became evident, from the masses of flocculent fibres which were attached all over their surfaces, that they had been densely adherent—they were, in fact, adherent over the whole of the superficies. This is only one of the many illustrations in which ignorance of the disease centred in such organs may have, or actually has, led spectators to go away after such an operation with the impression that normal appendages had been removed. From the peculiarities of the operation, no one except the operator can be cognisant of what the real conditions are inside, as none of the adhesions can be seen by the bystanders; and the only evidence to be obtained of these adhesions is the occurrence of hæmorrhage at the time of the operation (frequently very profuse), and the flocculent remains to the adhesions, which can only be seen when the appendages are floated in water, in spirit, or in some other transparent fluid. Fortunately, however, I have in my possession three preparations where the whole of the pelvic contents have been removed at post-mortem examinations, and where the conditions therefore can be demonstrated beyond cavil.

The first preparation was presented by Dr. Littlejohn many years ago to the midwifery museum in the University of Edinburgh, and it is now impossible to obtain any history beyond the fact that the preparation was removed from the body of a prostitute. The conditions are precisely such as I found in the pelvis of the patient upon whom I operated for Dr. Halliday Croom. The Fallopian tubes can be seen to be buried in adhesions, and bands of adhesions pass in all directions, gluing the appendages into abnormal positions, from which they cannot be moved; and to remove these appendages would involve attacking precisely the same extent of adhesion which I had to encounter in the case I have just narrated. In this preparation both the tubes are occluded. (The three preparations were exhibited to the Society.)

The second preparation I also obtained through the kindness of Dr. Littlejohn, and it has precisely the same history, having been removed from the body of a prostitute some months ago; and here again, unfortunately, no history can be obtained. In this preparation the surface of the posterior wall of the uterus was adherent to the rectum, and bands of adhesion passed in every direction, binding the uterus and ovaries together, the ovaries and tubes being considerably below their normal level and fastened there by the adhesions. Both tubes were completely occluded and glued on to the surface of their respective ovaries; these latter were also glued down into the recto-vaginal pouch.

Curiously enough, the third preparation, also taken from the body of a girl who led a loose life, was obtained at a post-mortem made on the very morning on which I was announced to give an address to the Medico-Chirurgical Society of Edinburgh on this very subject; therefore I had the advantage of seeing the preparation perfectly fresh, and of obtaining from the girl's friends, especially her sister-in-law, with whom she resided, an accurate statement of her past history. She had been brought up in a house of ill fame, and at a very early age had fallen into the habits of her associates. She was nominally a worker at a mill, had had an acute attack of syphilitic gonorrhœa before she was fourteen, had gone through a variety of stages of syphilitic infection, and died at the age of twenty from the bursting of a syphilitic aneurysm in the aorta. Her sister-in-law told me that her menstruation was regular and extremely profuse, whilst the suffering which she underwent at each time amounted to agony of the most intense kind, for which she had to take large quantities of spirits to obtain relief. She was totally incapacitated from moving about during the week in which her menstruation occurred, and, without my asking the question, her sister-in-law volunteered the information that the curious part was that the pain was always worse two or three days before the period showed itself. A detailed description of the appendages in this case is as follows:—The uterus was large and heavy, almost as if the girl had had several children, although she never had been pregnant; it was retroverted and quite adherent by dense bands of adhesions (some of which are still visible) to the sacrum; it was opened on its anterior surface. The ovaries, from the presence of adhesions in every direction, were with great difficulty identified, being about three times their normal size. The Fallopian tubes passed curving round them, and were equally adherent and flaccid *in situ*. On the left side the tube was not occluded, whilst that on the right was.

Looking at the preparations now before you, it is impossible to come to any conclusion other than that women, with their ovaries and tubes so matted and adherent together, bound down and incapable of making those movements which it is necessary for the process of impregnation should be made, could be otherwise than absolutely sterile; the machinery of impregnation is wholly out of gear. We have so far, as I regard it, the condition of womanhood existing in three distinct functions. The first is the mere domestic and social life which all women may lead, whether they be wives or mothers. They may be and often are eminently useful members of society, leading absolutely celibate lives. Of this there is of course no doubt at all. There can be as little doubt that in this function, perhaps, they are as useful as in any other. The second function which woman has to fulfil is that of wife; and the third of course is that in which maternity is accomplished. Everyone knows that the condition of wife may be occupied by a woman with perfect happiness, and with a largely extended sphere of usefulness, without the function of maternity ever being even attempted. For the fulfilment of her maternal function and for the perpetuation of the race maternity is a matter of necessity; but it requires nothing save the ordinary every-day experience of the world to prove that the maternal function of woman is limited to a relatively small number. From this we may have abundant indications for our processes of reasoning in dealing with questions of diseases such as those which have been and are to be relegated to one or other of these divisions; few extend into two of them, and only one into the third. The third I have already alluded to. The occurrence of the disease in these women, and the onset of the pelvic inflammation, from whatever causes it may arise, have settled the question of maternity. It is impossible, as I have said, that women so afflicted could ever become mothers. I have attempted to undo such adhesions, and leaving the organs released, in the hope that they might fulfil their functions; but I have absolutely failed; and I believe it is perfectly impossible for any, even the most skilled, surgical efforts to unravel these adhesions and to undo this chronic inflammation to such an extent as to make these organs fulfil their third and most complete function. The pelvic organs are wholly unlike any others. You can rest an inflamed eye by a ball of cotton-wool in a darkened room, and you can suspend absolutely the functions of an inflamed knee-joint by rest in bed and a splint; but you have no means of putting the pelvic organs of a woman at rest short of arresting the function of menstruation. The second function—that of the sexual duties of a wife—may be as completely performed without the uterine appendages, either congenitally absent or absent as the result of surgical interference, as with them. On the other hand, we find from the united evidence of both husband and wife in a large number of these cases of chronic inflammatory disease in the pelvis, that the disease hinders more or less, and in the majority of cases absolutely suspends, the possibility of marital intercourse. The removal of these diseased organs, the restoration of the patient to health, and the freedom from pain that she enjoys after the operation, permit of the gradual resumption of married life, and, after the lapse of a reasonable time, this, the second function of womanhood, may be as completely fulfilled as if she had never suffered.

The first function of womanhood, that of the social and domestic life of a woman, is again absolutely independent of the fact whether she has or has not ovaries and Fallopian

tubes. A woman who has been formed congenitally defective in this matter, may prove as useful a member of society as if she had been completely developed. So it is with those who have submitted to the mutilating efforts of the surgeon, and it must therefore be easily seen that as the disease from which they have suffered must deprive them of that healthy power of locomotion which is essential to complete usefulness in life, so the relief from their suffering by the removal of the diseased organs must restore them to the complete fulfilment of this their prime function in life. The arguments, therefore, which have been, and are still, often adduced against this operation as mutilating and unsexing women exist only in the impure imaginations of those who use them; they have no foundation in fact. If the function of maternity has been by the disease completely abrogated, the operation will make no difference; but if the suffering that these women have to undergo by their diseased condition interferes with their marital and social duties, their restoration to health by operative interference can be regarded only as a blessing to themselves and as increasing their usefulness to those with whom they are associated.

NOTES AND REMARKS ON A CASE OF

CYSTICERCI OF TÆNIA SOLIUM IN CEREBRUM AND FOURTH VENTRICLE OF TWELVE YEARS' DURATION,

PRODUCING INTRA-VENTRICULAR DROPSY, INSANITY, EPILEPSY, AND DEATH.

BY J. HARRINGTON DOUTY,

DEPUTY MEDICAL SUPERINTENDENT, WORCESTER COUNTY ASYLUM.

THE following case seems worthy of publication and brief remark, as possessing several points of clinical and pathological interest.

H. B——, a woman aged thirty-one, was admitted into the Worcester Asylum in November, 1877. She had been married rather more than three years previously, and is described by her husband as being, when he married her, in excellent health, perfectly sane, and of an affectionate and cheerful disposition. There was no heredity or other cause of insanity. About a year after marriage she was noticed to become at times dull and forgetful, and began to halt in the articulation of her words, which were sometimes forgotten, wrongly used, or transposed in a sentence. She became less affectionate to her husband, and was now liable to periods of unwonted sulkiness, obstinacy, and quick temper. This state of things went on and developed into a general mental hebetude, which persisted until a few days before her admission, when an attack of acute mania supervened, for which she was brought for treatment.

The notes on admission describe her as being the subject of acute mania, and suggest the probability of her proving to be in the early stage of general paralysis, of which she had some symptoms, such as incoördination of the articulatory muscles. The maniacal state yielded gradually to one of dementia. Six months after admission it is noted that she "walked badly and was unsteady on her legs," and "could hardly speak intelligibly." Three months later, after a convulsive attack, the right limbs became *gradually* palsied, and she was confined to bed; this hemiplegia persisted, and contractions occurred. Two years later she is noted to have been "very paralysed and helpless, simple and idiotic." At this time she could say simple words, such as her own name, or "Yes" and "All right," and could reproduce words she heard spoken. She could also answer a few questions of a simple and common nature, such as "What is your name?" When asked this she always answered by giving her maiden name; this, being the longer known and more frequently uttered name, required less voluntary effort than the less-used married one. Five years after admission (October, 1882) she is described as "much the same." She now talked and chattered like a parrot; could seldom say what she wanted to say, and could not write it; her facial expression, however, of sorrow, surprise, or pleasure was evidence of the absence of sensory aphasia. Six months later it is noted that she had "occasional attacks of vomiting without obvious cause"; this recurred every few weeks, and was evidently of cerebral origin. Examination of her discs was attempted, but found to be impossible, although both pupils were always widely dilated. About this time (May, 1883) she began to have, at intervals varying from a few days to a few weeks, epileptic seizures of an interesting nature. Many of them consisted merely of a scream, followed by a brief period of unconsciousness and marked "epileptic pallor." The loss of consciousness was sometimes only momentary, sometimes of a minute's duration. At times the fits had a convulsive stage, the spasms being general and of the ordinary tonic and clonic type. The right limbs, being palsied and contracted, were not moved during these convulsions; and later on, when the other leg and then the arm became gradually paralysed, the spasms were only noticeable in the left side of the face and the left eye. Sometimes vaso-motor spasm was the only evidence of a fit. These epileptic and convulsive seizures continued with increasing frequency and force, vomiting became more troublesome, the dementia gradually more profound, and aphasia complete, until on March 19th of this year death occurred after twenty-four hours of coma, "Cheyne-Stokes" respiration, and occasional convulsions. The case had been looked upon as one of cerebral tumour.

Necropsy.—The following is an abstract from the notes:—Skull-cap thick. A large quantity of clear fluid poured out on proceeding to remove the brain, and the left hemisphere then fell in like an empty bag; the vertex of the right hemisphere also fell in to a slighter extent. Convolutions, especially the left, markedly flattened; ventricles enormously dilated, containing about a pint of fluid. The left ventricle almost entirely replaced the left hemisphere, whose white matter had disappeared excepting that sublying the anterior parts of the frontal lobe. The white matter of the right side persisted, but was of much less than the normal depth. In the white matter sublying the middle of the left superior frontal convolution was a cyst of the size of a marble, having a membranous wall, and containing clear fluid of gummy consistence and a small white opaque object about the size of half a pea adhering to its inner surface. The cyst was easily lifted from its bed in the white matter, which for about one-eighth of an inch around the cyst was greyish and translucent. The cortex of the left hemisphere was, excepting in the frontal regions, atrophied and buff-coloured, and, with the membranes, formed the walls of the bag-like ventricle. The left corpus striatum and optic thalamus were smaller than the right. The lining of the right ventricle was "frosted," especially over the corpus. On opening the fourth ventricle, a cyst was found lying in its cavity, exactly similar to the one above described both in size and appearance, adhering slightly around the opening of the Sylvian aqueduct. It was easily removed. The aqueduct was dilated to the size of a small quill, especially at its upper end. The other organs presented nothing abnormal in their appearance, excepting a recent congestion of the lungs and kidneys.

Remarks.

1. *The cysts.*—These are pronounced by Mr. J. Bland Sutton to be cysticerci of tænia solium. The absence of heredity or any other predisposing or exciting cause of insanity in the case leads naturally to the conclusion that these cysts were causative of the symptoms, both general and mental. They must therefore have existed *in situ* for twelve years. It is interesting to note that they had not undergone calcareous or other degeneration in that long period of time.

2. *Their position and effects.*—One lay in the white matter which persisted in the left frontal lobe; its site, therefore, was not an uncommon one for cystic growths, and its proper share in the production of symptoms was probably slight. The other lay in an important position: it effectually blocked the fourth ventricle, and thus produced the dilatation of the aqueduct and of the ventricles; as a result "compression" ensued, leading to dementia and general palsy. A few cases with growths in this position are on record by Jacobson and others; one of villous growth in this site, reported by me in *Brain*, October, 1885, had very similar symptoms and conditions.

3. *The epilepsy.*—It is possible that the intra-ventricular dropsy may have caused the epileptic and convulsive attacks; more probably, however, these phenomena owed their origin to the direct irritation of the medullary centres by the cyst in the fourth ventricle.

4. *The insanity.*—The initial mania seems to have been the result of the irritation consequent on the lodgment and development of the cysts. The subsequent gradual abolition of the intellect, ending ultimately in complete amentia, was

but the natural accompaniment of the progressive cerebral lesions.

5. *The aphasia.*—This was normal in the order of its development. It will have been noticed above that the white matter sublying the left special speech centres had been completely destroyed. During the last few years of life voluntary intelligent speech was absent; involuntary and automatic utterances, however, continued until a few days before death—long, that is, after the left speech centres, and in fact almost the whole of the left hemisphere, had ceased to exist. The loss of the left speech centre therefore produced verbal amnesia, and almost effected the total loss of the motor speech processes; these last, however, were taken on to a certain extent by the right hemisphere, whose cortex also achieved (as Hughlings-Jackson says it always does equally with the left) the few simple automatic and imitative (reflex) utterances forthcoming until the onset of the præmortal coma.

6. *The excess of atrophy of the left over that of the right hemisphere.*—This cannot easily be explained. Both ventricles, as already stated, were much dilated; on the right side, however, white matter persisted, though thinned, and seemed to have been capable of conduction to a certain extent until the final stage set in.

7. *The unsteadiness in gait* noticed early in the case doubtless resulted from the pressure of the cyst in the fourth ventricle upon the middle lobe of the cerebellum. Vertigo and reeling gait were also prominent symptoms in the above mentioned case of villous tumour in this site.

8. *Dilatation of the pupils* was also a condition common to both these cases.

Powick.

SIMULTANEOUS LIGATURE OF RIGHT CAROTID AND SUBCLAVIAN ARTERIES FOR ANEURYSM OF ASCENDING PORTION OF ARCH OF AORTA.

REPORTED BY J. A. KELLY, L.M.S.,
RESIDENT MEDICAL OFFICER, HYDERABAD.

THE following case came under the care of Surgeon-Major E. Lawrie, M.B., M.R.C.S., Residency Surgeon, Hyderabad, Deccan, with whose permission I send it for publication.

W. de P——, a Eurasian, aged thirty-eight, had been under treatment since the early part of 1884 for repeated attacks of angina pectoris. He was also troubled by a hoarse cough, accompanied by frothy expectoration. The only treatment that afforded him any relief was hypodermic injections of morphia. In March, 1885, an aneurysm was detected by Brigade-Surgeon T. Beaumont in the ascending portion of the aortic arch; and in August pulsation appeared on the right side of the upper part of the sternum. After a time three ribs were eroded, and a pulsating tumour as large as a tennis-ball showed itself under the skin. There was difficulty in swallowing solid food, which was rejected as soon as it passed the pharynx; and the patient was obliged to live on liquids, which he had to swallow carefully and slowly for fear of being choked. The right side of the neck and face was œdematous and livid; the voice was changed to a whisper; there were paroxysms of angina with urgent dyspnœa, and a very troublesome cough. The pain had greatly increased, and, by preventing sleep, was impairing the patient's general health. No benefit was derived from absolute rest, Tufnell's diet, and large doses of iodide of potassium, and it was therefore decided to tie the common carotid and subclavian arteries.

On Oct. 22nd, a hypodermic injection of morphia having been previously administered, the common carotid and subclavian arteries of the right side were ligatured, under the spray, with carbolised catgut. Chloroform was administered for the first incisions. Afterwards, anæsthesia was kept up principally by the local application of a 10 per cent. solution of cocaine. The edges of the wounds were brought together by horsehair sutures, and thickly dusted with iodoform, and dressings of cloth prepared in a 1 per cent. solution of perchloride of mercury in blood-serum, and dried, were applied. He was ordered fifteen minims of antimonial wine in an ounce of water every two hours. In the evening the pulse and temperature (which before the operation were 90 and 98° respectively) rose to 120 and 101·4°, but subsided the next day, and the wounds healed without inflammation by the first intention. Most of the urgent symptoms connected with the tumour abated within the first week after the operation, and the patient's general condition gradually improved, so that he was able to leave the hospital on Dec. 18th. The radial pulse returned to the right wrist eleven days after the operation.

The aneurysm now (February, 1886) appears stationary, but still pulsates; pain has greatly decreased; swallowing is easily performed; and, with the exception of a dry cough, there are no pressure symptoms.

Hyderabad, Deccan.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

SECONDARY EPITHELIOMA SURROUNDING LEFT HALF OF THE BODY OF THE LOWER JAW; REMOVAL OF THE GROWTH, TOGETHER WITH HALF THE JAW; RECOVERY; REMARKS.

(Under the care of Mr. CHRISTOPHER HEATH.)

EPITHELIOMATOUS GROWTH secondary to that of the lip, seldom permits of successful removal when it has attained the size of the tumour in the present case. It is unusual to find so extensive an involvement of the bone, as in this instance, with such slight glandular affection, the secondary growths generally appearing in the glands under the jaw and involving the bone later and to a much less extent. The illustration shows well the size and appearance of the growth. Not only was the patient successfully relieved of a painful disease by the operation, but, from the careful manner in which all trace was removed, he has a prospect of prolonged life. For the notes of the case we are indebted to Mr. Bilton Pollard, surgical registrar.

J. H——, aged fifty-five, a labourer, was admitted into University College Hospital on March 22nd, 1886. Two years and a half ago an ulcerated swelling formed in the lower lip, close to the left angle of the mouth. About six months later the growth was removed, and the patient remained well till a year ago, when he noticed a swelling beneath the left angle of the lower jaw. The secondary growth had steadily increased in size up to the time of admission, when the lower part of the left side of the patient's face was much enlarged (see figure). The swelling extended from the middle line beneath the chin to the angle of the jaw, involving all the tissues in the left submaxillary space, and almost surrounding the body of the jaw.

On March 24th, the patient being under the influence of ether administered through the nose, Mr. Heath entered the scalpel about half an inch below the left angle of the mouth, and carried it downwards and outwards over the growth in an elliptical manner for three inches and a half. A similar incision was made between the same points, but at a distance of an inch and three-quarters about the middle. The healthy skin was then dissected up till the limits of the growth were reached; the knife was then sunk down to the jaw in the middle line and through the masseter muscle to the ramus of the jaw, and the bone was sawn across at those two points. The bleeding from the inferior dental artery was arrested by touching it with the point of Paquelin's cautery. The tumour was then drawn outwards and the mass freed by dividing the muscles attached to the left side of the body and angle of the jaw. After the bleeding had been arrested the edges of the wound were drawn together by three button sutures and accurately adjusted with fine wire sutures. The outer part of the wound was left open for drainage. The wound was dusted over with iodoform, and a dressing of iodoform wool was applied.

The parts removed consisted of the left half of the body of

the jaw together with the angle and a small portion of the ramus. It was surrounded below and on both surfaces, except close to the symphysis, by a mass of new growth, which involved the fibres of insertion of the masseter and internal pterygoid muscles, the deep fibres of the mylo-hyoid muscle, and the small muscles on the outer surface of the jaw, together with the greater part of the skin included between the incisions. The submaxillary gland was removed entire with the mass, and the anterior portion of it was implicated in the growth. The body of the lower jaw was diseased by extension of the growth into it. The growth consisted of a squamous-celled epithelioma; the tissue between the epithelial masses consisted of delicate fibrous tissue and small round cells.

The patient was fed twice a day by means of a tube passed into the stomach; each meal consisted of two raw eggs, half a pint of strong beef tea, half a pint of milk, and an ounce of brandy. On the fourteenth day after the operation feeding by the tube was discontinued, and the patient fed himself in the ordinary way. The dressing was

changed twice a day. On the twelfth day after the operation all the stitches were removed; the wound had healed by first intention, except at the posterior part, which had been left open for drainage. The patient was discharged on the twenty-second day after the operation; he was perfectly well and free from pain; there was a small sinus at the posterior part of the scar, and through it a little saliva dribbled.

Remarks.—From the above account and from the woodcut it will be seen that the growth was very large, and that its extirpation involved a great loss of skin and the removal of all the tissues in the left submaxillary space. The wound, nevertheless, healed rapidly and well—a result which may be largely attributed to the care which was taken to keep the wound and the mouth thoroughly clean. With this object in view, the patient's food was poured directly into the stomach for fourteen days after the operation, and the wound in the mouth was dusted twice a day with iodoform. The tumour itself presented some points of interest. The patient had had a growth removed from the lower lip two years before, so that it seemed most likely that the tumour under consideration was epitheliomatous, and that it was secondary to that primary growth. The tumour, however, presented the characters of an independent growth in connexion with the body of the lower jaw, for it almost completely surrounded that bone and consisted apparently of a single solid mass. There were no outlying enlarged lymphatic glands, and the growth was situated at a higher level than is usually the case with growths in the lymphatic glands secondary to epithelioma of the lip. That it was an epithelioma was shown by the microscopical examination, and so, considering the healthy state of the scar resulting from the operation on the lip, the tumour must have originated from a secondary deposit in one of the lymphatic glands beneath the jaw, and spread widely from that centre without infecting other lymphatic glands of the jaw. On the external surface of the latter it spread upwards as far as the alveolar border and over the ramus to the level of the lobule of the ear. A large mass of new growth projected into the floor of the mouth opposite the posterior part of the body of the jaw. At the left angle of the mouth there was a scar which reached down to the growth; but the scar itself was free from new growth. Over the most prominent part of the tumour the skin had a purplish colour and was fixed to the growth beneath, by which it was clearly implicated. The tumour formed a single mass, and no outlying glands could be felt.

BATLEY AND DISTRICT COTTAGE HOSPITAL.

CASE OF EXCISION OF THE OS CALCIS, ASTRAGALUS, AND BOTH MALLEOLI, WITH RESULTING USEFUL LIMB.[1]

(Under the care of Dr. ALFRED SWANN.)

L. P——, aged eight years, a little girl, came under care in June, 1882. Her family history reveals that her father had a piece of diseased bone removed from his right femur thirty-five years ago. This he ascribes to an accident. Both parents are living. There seems to be no positive evidence of struma, syphilis, or phthisis in the family. The child's previous history was that fourteen weeks before admission the ankle began to swell, and she suffered from great pain and feverishness. A medical man was in attendance, and poultices were applied until an abscess formed and burst. This gave very little relief; the ankle still remained swollen and the constitutional symptoms continued. There had been no injury to the joint.

On admission, the child was suffering from feverishness and pain (temperature 103·5°) and a very much enlarged right ankle-joint. On the outer side of the heel, below the malleolus, was a discharging sinus. The whole contour of the heel and ankle-joint was enlarged, and the part was very tender and inflamed. On passing a probe into the sinus, it went for three-quarters of an inch directly inwards and impinged on rough and crackling bone. Movement of the ankle caused slight pain, but there was no grating, and the movement was free. As the sinus ran straight into the os calcis, it was concluded that this was a case of disease of the cancellous tissue of that bone, and on June 15th, 1882, the child being under chloroform, Dr. Swann made a crucial incision, including the opening of the sinus, and, dissecting up the flaps, gouged away a large quantity of gritty and some caseous material from the interior of the bone, and inserted a drainage-tube.

The child was decidedly better after the operation, and for some time the pain disappeared, and the constitutional symptoms improved generally. Three weeks after the operation it was found that the sinus still remained open, the foot again began to swell, and there were great pain and feverishness. The disease still seemed localised to the os calcis; it was therefore determined to remove this, as rapid extension of the disease into the rest of the tarsus was apprehended. On July 7th, 1882, the child having been chloroformed, and an Esmarch's bandage having been applied to the limb, a horseshoe incision was made from the cuboid round the back of the heel to a point opposite to it. This flap was dissected up, keeping as close as possible to the bone, and saving as much periosteum as was practicable. The tendo Achillis and skin over it were split by an incision down to the bone, and dissected off laterally. The calcaneo-astragaloid and calcaneo-cuboid joints were then opened, their ligaments cut, and the bone removed. Attention was then turned to the astragalus, and it was found that this contained a plug of caseous material. This was gouged out. Dr. Swann found, however, that the disease extended so far that he could not avoid opening the ankle-joint; in fact, the ankle-joint was already the seat of commencing disease. (The specimens shown to the Society demonstrated the foregoing very plainly). He therefore enucleated the astragalus. This having been done, the scaphoid and cuboid, which appeared free from disease, although their cartilages were reddened, were examined. Both malleoli were then removed, and a thin slice excised from the end of the tibia, care being taken not to interfere

[1] This case was shown before the Leeds and West Riding Medico-Chirurgical Society on Jan. 15th, 1886.

with the epiphysis. The limb was placed on an angular wire and tin-plate splint, and dressed with dry dressing. As soon as the healing process was fairly established the child made wonderful strides towards recovery, and was discharged on Nov. 13th, 1882, with a useful limb, capable of all ordinary movements.

Remarks by Dr. SWANN.—I have kept the child under observation ever since her discharge from hospital, and at the time of my showing her to the Leeds and West Riding Medico-Chirurgical Society she walked with a hardly perceptible limp, and was in perfect health. She is thoroughly well at the present time. The following points are of interest:—1. Erichsen says, where the disease is extended into the malleolar arch, and where the whole of the os calcis is diseased, no alternative remains but amputation, resection not leaving a useful foot. The above case certainly does not tally with this, as the whole of the os calcis was removed together with the astragalus &c., and an almost perfect limb has resulted. 2. The bones removed contained extensive plugs of tuberculous material. The child is now, four years after the operation, in perfect health. Did the operation by removing a focus of tubercle save the patient from becoming tuberculous? I deem this a question of importance with regard to one's action in future cases of strumous bone disease. 3. The first operation on the os calcis was useless, and I now regard it as having been a waste of time, as I believe partial operations on children's bones are rarely successful, and a free and wide exploration is safer in the first instance.

MEDICAL COLLEGE HOSPITAL, CALCUTTA.

IRREDUCIBLE PROLAPSE OF THE RECTUM TREATED BY AMPUTATION; RECOVERY.

(Under the care of Mr. O'CONNELL RAYE.)

A HINDOO male, aged forty-four, was admitted suffering from prolapse of the rectum of several days' duration. The protruded parts were livid and ecchymosed, with here and there isolated patches of sloughing mucous membrane. The mass was about the size of the clenched fist. The patient was in great suffering and much exhausted. He was placed under chloroform, and careful, prolonged efforts were made to reduce the prolapse, but without success. The measures commonly recommended for the relief of irreducible prolapse—such as excision of strips of mucous membrane, scoring with the actual cautery, nitric acid, &c.—seemed scarcely suitable for this patient, as the bowel had been protruded for several days, and was in a very doubtful state of vitality. Mr. Raye therefore resolved to amputate the protrusion level with the encircling skin. He acknowledged that he should almost certainly have to open the recto-vesical pouch, but hoped, nevertheless, to be able to keep the peritoneum free from contamination. The parts were carefully examined lest they should contain a loop of intestine.

For the operation a Wood's hernia needle was used, armed with a stout silk ligature about two yards long. The needle was introduced along the left index finger within the protruded bowel as far as the level of the anal orifice. The point of the needle transfixed the protrusion from within, and emerged on a level with the skin. A loop of the silk was caught, and held while the needle was withdrawn within the lumen of the bowel. The bowel was again transfixed on the same level, with the needle still threaded, so that the point emerged on the external surface of the prolapsed rectum about one inch away from the first puncture. Another loop of the silk was there similarly caught and retained. This procedure was repeated, just as in the ordinary method of ligaturing a nævus in sections, until the entire mass was included. The external loops were then cut and tied, and thus each included portion was separately secured. The next step was to amputate the mass. Expecting to meet the pouch of peritoneum, Mr. Raye began in front by carefully cutting until he came upon this structure. He dissected the pouch from its surroundings in the manner employed with the sac in some of the modern operations for radical cure of hernia. When the pouch was thus secured, it was raised out of the way and the prolapsed rectum amputated just below the transfixing ligatures. There was no hæmorrhage. Two of the ligatures had transfixed the pouch. He divided these two ligatures, and as portions of the cut edges of the bowel were thus liberated, these edges were seized with Spencer Wells's clamp forceps to prevent bleeding. The prolapsed recto-vesical pouch, being now free, was drawn gently downwards a little, and its neck tied with carbolised catgut just above the point where the ligatures had passed through it. The sac was then cut off and its pedicle allowed to slip back within the pelvis, secured by the catgut ligature. Those portions of the cut edges of the bowel which were held in the clamp forceps were again transfixed with ligatures, which, when drawn tight, completely occluded the orifice through which the process of peritoneum had been protruding. The ring of ligatured bowel was pushed within the anal orifice, the ends of the silk ligatures hanging out for facility of removal, a morphia suppository was inserted, and the man put to bed. The operation occupied about three-quarters of an hour.

There was considerable pain for two days. On the third day the bowels were moved naturally. From the first there was no difficulty in micturition. Two ligatures were found loose on the twelfth day. Two more ligatures came away two days later on. By this time the patient felt quite well, had little or no pain on defecation, and had complete control over the action of the bowels, from which it was presumed that some portion of the sphincter remained. The calibre of the bowel was almost normal, a ring being felt where the ligatured portion lay about an inch within the anus. Whether this ring disappeared subsequently by absorption, or whether it contracted to form a stricture, Mr. Raye is unable to say, as the man absconded on the twenty-first day, some of the ligatures being still *in situ*.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Monocular Iritis. — Interstitial Keratitis. — Pulsating Tumour of Orbit.—Double Chronic Glaucoma.—Corneal Changes in Acquired Syphilis.—Nævus involving Eye.—Paralysis of External Recti.—Mr. Hutchinson's Address.

THE last meeting of the session of this Society, which was also the annual general meeting, was held on the 2nd inst., Mr. Jonathan Hutchinson, President, in the chair.

The annual report of the Council, read by Dr. Seymour Sharkey, showed that the state of the Society was one of prosperity. The members number now 198. The library has been considerably developed, a complete set of Transactions of the Pathological Society, of "Brain," of the Ophthalmic Hospital Reports, and of the Archives de Neurologie having been added.

Dr. BRAILEY showed drawings from a case of Monocular Iritis in a child. The iris was discoloured, and projecting from it were several small greyish-white or pinkish-white nodules; it was adherent at three points to the lens. In the corneal substance were several small greyish opacities. He considered that the disease was tubercular, though the aspect of the patient somewhat suggested congenital syphilis.—Mr. HUTCHINSON said the sequel of the case might throw some light on its nature. The presence of enlarged cervical glands was in favour of a diagnosis of tubercle.

Dr. BRAILEY also exhibited a case of Interstitial Keratitis, in which the left cornea had a somewhat peculiar aspect, and the idea was that it was of tubercular origin. The right eye presented changes which were clearly of a syphilitic type. The left eye showed about a dozen small greyish-white fairly defined nodules.

Mr. A. Q. SILCOCK showed a man with a large Pulsating Tumour of the Orbit. The sight of both eyes had been destroyed by a charge of small shot some years ago. Within two or three days after the accident, he heard a hissing noise in his head. A tumour, occupying the inner angle of the left orbit and extending over the bridge of the nose, began to develop about twelve months after; pressure on the left carotid, which was enlarged, arrested the pulsation and bruit in the tumour, which was not growing rapidly in size. Mr. Silcock said he felt disposed to tie the carotid, but added that Mr. Hulke had advised the use of electrolysis.—Mr. ADAMS FROST was reminded of a case of arterio-venous aneurysm shown by himself to the Society in 1882 (Ophthal. Trans., p. 111). It was the case of a child in whom the signs pointed to fracture of the base of the skull.

The pulsating tumour had first appeared in one orbit, and afterwards in the other. He thought Mr. Silcock's case of a similar nature. That the tumour had not appeared till a year after the accident, although the noise in the head had been audible to the patient from the commencement, was in favour of this view; and recorded cases showed that the primary lesion was aneurysmal varix of the cavernous sinus. The long duration of the case, the tendency of such cases to grow slowly, or even to remain *in statu quo* for long periods of time, should be borne in mind in thinking of the treatment. He should not recommend electrolysis even if the growth were entirely intra-orbital, and this would be completely out of the question if the disease were intra-cranial. Occasional exacerbations of pain and pulsation might be relieved by rest and digitalis.—Mr. HUTCHINSON agreed with the views of the previous speaker. He would not be inclined to advise any radical treatment, but would rather deligate the carotid than employ electrolysis or injections. As showing the little inconvenience that such disease might give, he mentioned the case of a woman who had a large cirsoid aneurysm of the scalp, for which twenty years ago he had ligatured the occipital and temporal arteries, without effecting any improvement in her condition. He saw her again the other day when her condition was not materially altered.

Dr. M. J. SYMONS (Adelaide, South Australia) contributed the history of a case of Double Symmetrical Changes in the Cornea of a man aged twenty-nine, who had acquired syphilis eight years earlier. The patient had first noticed that his eyes were weak, and that there was a film upon them seven weeks before he came under treatment. At the latter date there was thinning, bulging, and opacity over limited areas of both corneæ, without any disturbance of the epithelium. The iris was partially adherent in both eyes. The other tissues of the eye appeared to be healthy. Iodide of potassium effected but slight improvement in a fortnight, when the patient left the hospital. — Mr. HUTCHINSON said the corneal changes had occurred in the tertiary period, but he was not certain whether they were really due to the syphilis. He asked members whether they had seen corneal changes in acquired syphilis.—Mr. NETTLESHIP had seen a few cases of keratitis in acquired syphilis. Even now he had a case under his care in a woman.—Mr. MCHARDY recalled some cases in which inherited syphilis could be excluded.—Mr. LANG had seen a case in a married woman, aged thirty-six, with typical interstitial keratitis and suffering from acquired syphilis; there was no evidence of congenital disease. A second case was referred to in a man: the keratitis occurred twelve years after infection.—Dr. A. MONEY asked what was the latest age at which interstitial keratitis of congenital syphilitic origin could occur; he had seen a case in a woman aged thirty-three, in whom the inherited disease was unquestionable.—Mr. J. HUTCHINSON said he had seen several cases as late as thirty-six years of age.—Mr. NETTLESHIP referred to a case between thirty and forty years of age.—Mr. ADAMS FROST mentioned a case in a woman aged thirty-nine.

Dr. BRAILEY described a case of chronic glaucoma affecting both eyes of a man aged sixty. The man died of aortic aneurysm, which had lasted for twelve years; vision had been failing for three years, but was never insufficient for ordinary purposes; tension in both eyes was increased (T + 1). No operation was performed. Microscopical examination after death showed cupping of the disc, and inflammation of the optic nerve, extending, in decreasing degree, through the chiasma to the optic tract. The iris was neither inflamed nor atrophied. The muscular elements of the ciliary body were inflamed. This case appeared to show that the inflammation and atrophy of the iris so commonly found in glaucoma were entirely secondary to the establishment of the tension; the same remark applied to the inflammation and atrophy of the ciliary body.

Mr. SIMEON SNELL (Sheffield) sent a description of the case of a girl aged seventeen, in whom a cutaneous nævus extended over the brow of the right side from the orbit for four inches and involved the upper eyelid. Vision in the right eye had always been imperfect, if not absent. The tension of the globe was increased T + 2, and there was some pain, which was relieved by eserine. No reflex was obtainable from the fundus; the posterior part of the vitreous was occupied by a greyish flocculent substance. The pupil was dilated; at the inner and lower ciliary region there was a staphyloma, and the surface was vascular with deep tortuous vessels. In the circum-corneal region above was a purplish area, which extended upwards and backwards and apparently involved the sclerotic. The eye was enucleated.—Dr. BRAILEY examined the eye after removal. The retina was detached; the optic disc hidden by a great thickening of the choroid; the muscular substance of the ciliary body was shrunken; the iris was inflamed and atrophied. The thickening of the choroid was due to the presence of numerous vascular channels.

Mr. W. J. CANT (Lincoln) contributed a paper on a case of Paralysis of the External Recti. It was that of a man aged sixty-three, suffering from diplopia, headache, slight optic neuritis, and slight albuminuria. Under the influence of saline purgatives the recti gained power, and the double vision became less marked.—Dr. SEYMOUR SHARKEY supposed that it meant to be inferred that the paralysis was connected with Bright's disease; the evidence of the presence of this disease was slight; there was simple neuritis, not albuminuric retinitis. He suggested that the case was one of intra-cranial tumour.—Mr. HUTCHINSON suggested that the case was one of ophthalmoplegia externa in an early stage.—Dr. A. MONEY thought that the disappearing paralysis might be due to the diphtheria, which would also account for the slight albuminuria.

The following card cases were shown:—Mr. W. H. Jessop: Drawing of a case of Leukæmic Retinitis (under the care of Dr. Andrew, St. Bart.'s Hospital). Mr. Marcus Gunn: Peculiar Deep Partial Congenital Excavation of the Optic Disc. Mr. W. J. Cant (Lincoln): Drawings of Symmetrical Disease of the Fundus, probably congenital, in a child.

At the conclusion of the general business, Mr. HUTCHINSON delivered a valedictory address. He congratulated the Society on the appointment of Mr. Hulke as in-coming President, than whom no one was better fitted to carry on the traditions of the Society. Reference was next made to the severe and painful illness of Sir William Bowman, whose health Mr. Hutchinson was able to say now showed some signs of improvement. He then briefly reviewed the work of the Society during the three years' tenure of his office of President. He spoke with special approval of the experiment of collecting facts concerning Graves' disease which had marked the last session; the result was of good augury for the success of future undertakings of a similar nature; indeed, the President considered that this was a sphere in which the Society would find a special field for thoroughly valuable work. He gave several illustrations. The Society might play the part of a concentrating lens in bringing to a focus all the facts which it could collect anent any rare or disputed clinical subject. As some of the topics suitable for such work, mention was made of certain questions regarding tobacco-amblyopia. Does this form of amblyopia ever relapse? He opined from his own experience that it did not. Half an hour's debate, after the attention of the members had been directed to the question for a year or so, should be sufficient to settle this question. He also felt that there were grounds for believing that many cases of tobacco-amblyopia got well, even though smoking was not given up. Do neglected cases ever progress to absolute blindness? With regard to amblyopia potatorum, was this due to the spirits imbibed, or, as some thought, to renal disease or to tobacco? Many spirit-drinkers were also large smokers. Allusion was next made to Mr. Nettleship's case of progressive failure of sight in a woman without any other symptoms. What was the meaning of this temporary extinction of a special sense? Was it allied to the temporary blindness of megrim? The assumption that such cases were due to retro-ocular neuritis required careful investigation. The Transactions of the Society should be of encyclopædic dimensions; systematic efforts were needed; a small committee of energetic men should be appointed, with a view to organise the contributions to be made to the Society; contributions should not be left to chance. The discussion that had taken place that evening had shown that Mr. Morton's case of interstitial keratitis was not unique in the history of acquired syphilis; the severity and persistency of this case were most remarkable, for the results seemed to be deplorable; it was very gratifying to know that twenty years afterwards there had been considerable recovery, and this after mercury and iodides had been entirely discontinued. This suggested that our remedies were unable to influence such sequelæ of syphilis; the inherited form of keratitis was not specially benefited by specific treatment. Another suggestion he had to make for increasing the useful work of the Society. Further particulars and the sequel of cases inserted in the Transactions should be sought for and

recorded in a supplement of the volume. The Society should endeavour to increase its value to general medicine by discovering and publishing accounts of those ocular lesions which indicate disease in other parts of the body. Are the atrophic patches in the periphery of the choroid invariably indicative of syphilitic taint?

A vote of thanks to the retiring President, proposed by Mr. Sympson and seconded by Dr. Eales, was carried by acclamation. The Society adjourned at 10.45 P.M.

The following officers and Council were duly elected for the year 1886-87:—President: *John Whitaker Hulke, F.R.S. Vice-Presidents: *Jonathan Hutchinson, F.R.S.; George Johnson, M.D., F.R.S.; *E. Nettleship; Thomas Reid, M.D. (Glasgow); D. Argyll Robertson, M.D. (Edinburgh); T. Sympson (Lincoln). Treasurer: William M. Ord, M.D. Secretaries: Seymour J. Sharkey, M.B.; *Robert Marcus Gunn. Other members of Council: John Abercrombie, M.D.; *W. A. Brailey, M.D.; Sidney Coupland, M.D.; Walter Edmunds; *H. E. Juler; *William Lang; *J. B. Lawford, M.D.; A. Stanford Morton; *P. H. Mules, M.D. (Manchester); Simeon Snell (Sheffield); J. B. Story (Dublin); John Tweedy. Librarian: W. Adams Frost. (The gentlemen whose names are marked with an asterisk (*) were not in the Council, or did not hold the same office during the preceding year.)

ACADEMY OF MEDICINE IN IRELAND.

Rupture of Pelvic Cyst.—Laryngeal Changes subsequent to Laryngo-tracheotomy.—Granular Disease of Kidneys.

AT a meeting of the Pathological Section, held on April 9th, Dr. C. B. BALL communicated a case of Rupture of a Pelvic Cyst. The specimen was removed from the body of an unmarried lady, aged eighty-six years, who died shortly after the performance of a very trifling operation. She stated that at the time of her menopause a tumour formed in her abdomen, which was attended at the time with considerable menorrhagia. A year ago he saw her for the first time for some trifling complaint, and she then directed his attention to this abdominal tumour, which for twenty years had not given her any uneasiness. It was at the middle line, very firm to the touch, and absolutely painless. About six weeks ago she consulted him for piles, from which there had been considerable bleeding, and he operated by clamping two or three small piles. For two days she went on as well as such cases usually did; and then, about forty hours after the operation, she was suddenly seized with sickness of the stomach, and a state of intense restlessness followed. Her abdomen was somewhat distended, but was not tender, and there was no very definite evidence of peritoneal mischief. The restlessness increased, and she died in ten hours after she was attacked with those symptoms, none of which were referable to the operation. He was enabled to make a post-mortem examination. He had been prepared to find a fibro-myoma attached to the uterus. The first part of that diagnosis turned out to be correct. The tumour was a fibro-myoma; but it was attached, not to the uterus, but by a broad pedicle to the neighbourhood of the right ovary. Section of the tumour showed that it corresponded with ordinary uterine myomata, and microscopic examination confirmed that view as to its nature.

Dr. E. H. BENNETT communicated a case of Laryngeal Changes subsequent to Laryngo-tracheotomy. The specimen consisted of the larynx and trachea of a man on whom he performed laryngo-tracheotomy fourteen years ago. During the building of the Spencer Dock, this man, who was then between twenty-five and thirty years of age, was employed at the excavations. He had previously suffered from typhoid fever, from which he had had a tedious recovery; and, pressed by the necessities of life, he undertook work sooner than he should have done. In a fortnight after leaving the Whitworth Hospital, where he had been treated for the fever, he was admitted into Sir Patrick Dun's Hospital suffering from extreme dyspnœa. His distress was so great that no detailed examination was possible; and he (Dr. Bennett) opened the air-passage by an incision through the crico-thyroid membrane and down through the cricoid cartilage. Immediate relief followed, and a tracheal tube was introduced. It was an ordinary double tracheotomy tube, with a loop-shaped orifice cut in it to facilitate respiration through the larynx. Very soon the mucous membrane projected into this opening; and at each change of the tube a sort of shearing of the edges of the membrane took place, accompanied with hæmorrhage and pain. Consequently that tube was abandoned, and another of more suitable size introduced. The injury to the mucous membrane occurred two or three times in consequence of the withdrawals of the former tube. The man left the hospital cured; and during many years afterwards he (Dr. Bennett) constantly saw him. During his convalescence after the operation a laryngeal examination was made, from which it was discovered that the dyspnœa had been caused by suppurative perichondritis of the larynx. All the tissues were swollen and infiltrated; and the laryngoscope showed that on the left-hand side of the vocal cords there was an opening, through which an abscess had penetrated into the larynx. No necrosis of any part of the larynx ensued. The point of interest was, why it was that in such cases as this, in which laryngeal operations were performed on adults for syphilitic ulceration or for any other affection, the tube had to be always worn afterwards. In several cases he had withdrawn the tube, and the result was that the opening contracted and he had to perform a second tracheotomy and introduce a fresh tube. Did the laryngeal changes result from the mode of operation, or from what other cause? Looking at the present specimen, he was inclined to think that the mode of operation had something to do with it. The first tracheotomy he ever performed was a laryngo-tracheotomy with an incision in the crico-thyroid. He maintained that Boret's mode of performing the operation was the easiest and safest, and much to be preferred to the high operation. In this, as in all the cases of old tracheotomy, the thyroid, cricoid, and other cartilages of the larynx were all ossified. The whole region of the cricoid was shrunk to a minimum, and the larynx was shrunk to the condition of a child's larynx.

Dr. M. A. BOYD communicated a case of Granular Disease of the Kidneys. The patient, a lad aged twenty, was received a couple of months ago into the Mater Misericordiæ Hospital. He had had tympanites of the abdomen, sickness and vomiting for some days previously, with brown typhoid tongue, and was sent into a ward as a case of typhoid fever. On seeing him he (Dr. Boyd) found that his temperature was normal, and, on examining the case more closely, he found him to be suffering from congestion of the base of the left lung, with bronchitis, while his face, upper extremities, and whole body were cyanosed. He was very stupid and lethargic; but his friends said that he had had those symptoms for a considerable time. He had also loss of memory and puffiness of the face, and had not been able to do his work, which was that of a grocer's assistant. For twenty-four hours before his admission he had not passed any urine, and it was withdrawn by a catheter. For three or four days afterwards his temperature was either normal or slightly subnormal—between 97·8° and 98·4°. After the first day in hospital his symptoms were those of uræmic coma, and the lethargic appearances seemed to increase. He complained of pain in the occiput and in the right side of the head. The urine, which was drawn off by the catheter, contained albumen. He (Dr. Boyd) concluded that it was a case of disease of the kidneys, with uræmic coma. He died comatose on the fourth day. It proved to be a case of what Dr. Hammond called red granular disease of the kidneys; but there had been no previous affection of the kidneys. Ten years previously he had had scarlatina, but no symptoms of dropsy or of acute nephritis afterwards. He had pains in the knees and ankles, with effusion at the right knee-joint. The diseased kidney was smaller than the natural size, and lighter than it should be. The cortex, although not adhering so closely as to tear the substance of the kidney, adhered pretty closely to it, and could be seen, white and granular-looking, through the capsule. A section of the kidney also disclosed small hæmorrhagic points here and there, and a granular condition of the cortex itself, and the area of the cortex was very much narrowed.

Sanitary and Judicial Aspects of Cremation.—The Climate of Dublin.

At a meeting of the Subsection of State Medicine, held on April 21st, Dr. H. C. TWEEDY read a paper on the Sanitary and Judicial Aspects of Cremation. Having alluded to the condition of graveyards which gave rise to the Southwood Smith Commission in 1849, he proceeded to show that the dangers arising from the present mode of sepulture were to be traced partly to the contamination of air and water by the gases of decomposition

and other putrefactive matters, and partly by the fact that the germs of several forms of zymotic disease not only retain their vitality in graves, but are capable of indefinite propagation under favouring conditions of heat and moisture, and, becoming liberated on the disturbance of graves, give rise to the several diseases of which each is the specific ferment. The process of cremation got rid of all these dangers, anticipating putrescence by the rapid reduction of the body to its elements, and by the total destruction of all organic germs by the high temperature necessary for the process. A description was then given of the Gorini Crematory now in use at Woking, and various objections to cremation were discussed.—The REGISTRAR-GENERAL FOR IRELAND (Dr. Grimshaw) said the question of cremation was one of great and growing importance. Its sanitary aspect admitted of no discussion, and its sentimental aspect scarcely concerned the medical profession; but its medico-legal aspect required careful consideration in the interests of the public, having regard to the risk of cremation being made use of as a readier method than others to get rid of suspicious cases.—Dr. ATTHILL had long been in favour of cremation, and regretted that the good old system of ancient times was not still carried out.—Dr. HENRY KENNEDY said the question of expense was worthy of consideration in connexion with the subject, as the cremation of paupers would be a considerable tax on the country. He did not believe in the great danger to health alleged to arise from interment. There was no evidence that graveyards were a source of sickness, and therefore it might fairly be questioned that the mischief alleged to arise from such contamination was exaggerated.—Dr. JOHN WILLIAM MOORE regarded the argument from sentiment as altogether in favour of cremation. In the Bible there was nothing from beginning to end opposed to cremation. Dr. Henry Kennedy had not given sanitary or preventive medicine sufficient credit, nor could he agree with him as to the comparative innocuousness of the round of nature which he had described.—The PRESIDENT (Dr. Jacob) held with the Registrar-General that the sanitary aspect of the question was not open to dispute. Indeed, any system by which the results of decomposition could be got rid of would be a boon. Dr. Tweedy's paper had satisfied him that the medico-legal difficulties in the way of cremation had been thoroughly met. It was only in one of 20,000 cases that judicial considerations intervened and a suspicion arose to justify exhumation, and therefore, as regards cremation, they had to deal but with that one case in which the law found it necessary to protect the public against foul play.

Dr. J. W. MOORE read a paper on the Climate of Dublin, based on twenty years' observation. The climate of Dublin was, he said, in the fullest sense, an *insular* one, free from extremes of heat and cold, except on very rare occasions, and characterised by a moderate rainfall (about 28 in.) annually, which is distributed, however, over a large number of days (about 195 in each year). Clouded skies, a high degree of humidity, and a prevalence of brisk winds, chiefly from westerly points of the compass, make up the climatology of the Irish capital.

CAMBRIDGE MEDICAL SOCIETY.

AT the meeting on May 7th, Dr. J. B. Bradbury, President in the chair, the following communications were made:—

Quadruple Mammæ in a Man.—Mr. POLLOCK showed a patient with two accessory nipples situated below the two natural ones.

Specimens of the Naegele and other Deformities of the Pelvis, their diagnosis, and some points in the management of Labour.—Dr. W. S. A. GRIFFITH exhibited a specimen of the Naegele pelvis which he had recently obtained from a patient who died in St. Bartholomew's Hospital, after a labour terminated by craniotomy; also a model of the similar but bilateral deformity of the pelvis described by Robert, belonging to the museum of St. Bartholomew's Hospital. The Naegele pelvis was a rare deformity, there being only three other specimens in London. Some held that the synostosis and the consequent deformities might be acquired by disease of the sacro-iliac joint and pressure effects; others, including Naegele himself, believed that the ill development was congenital. His own view was that the sacro-iliac synostosis and arrest of development were congenital, and that the deformities of obliquity and flattening were part of the original defect, and only to a slight, if any, extent caused by altered pressure. As to treatment, Dr. Griffith stated that, for almost all cases, the simplest and most effective method of delivery after perforation of the head was by the best modern forms of the craniotomy forceps, or, as some preferred to call them, cranioclasts. The crotchet, like the vectis and blunt hook, was practically obsolete. The cephalotribe was a cumbersome instrument, and would not often be required by a man who thoroughly understood the operation of cranioclasm. He insisted on the necessity of an accurate knowledge of the mechanism of labour for a recognition of the abnormalities of mechanism in the early stages of labour, such as occurred in the rickety and generally contracted pelvis, and would save many women from some of the great risks of obstructed labour, and means could be employed with success that would be useless at a later stage.

A Visit to M. Pasteur.—Mr. WHERRY gave a short account of the new treatment for hydrophobia carried out by M. Pasteur in Paris, and briefly described the method of inoculation and the mode of preparation of the attenuated virus.

Two Cases of Serious Symptoms from Foreign Bodies in the Ear. — Dr. Ingle mentioned two instances in children, in which marked cerebral irritation and pyrexia were produced by the presence in the ear of foreign bodies. In the one case a swollen dead lady-bird was extracted by syringing, in the other some wax and a dried pea. He offered in explanation that the symptoms were produced by pressure on the branches of the third division of the fifth nerve and the vagus, which supplied the cutaneous lining of the canal and drum; further, pressure upon the vaso-motor fibres of the sympathetic might lead to the irritation of certain areas; and these changes would be more likely to occur in children from the small size of their ear-passage and from the fact that in both cases the foreign bodies were capable of enlargement from the absorption of moisture. Dr. Ingle was in favour of syringing as the safest and best method of removing foreign bodies from the ear.

Notices of Books.

On the Fœtus in Utero. By ALEXANDER HARVEY, M.D. London: H. K. Lewis. 1886.—The object of the publication of this work is stated in the preface to be to bring prominently forward the "inoculation theory," which is little known, is hardly noticed in physiological text-books, and the literature of which is hardly accessible. The book consists of a series of papers published in the *Edinburgh Monthly Journal of Medical Science* in 1849 and succeeding years, as well as elsewhere. The subjects of the essays are on the fœtus in utero (*a*) as inoculating the maternal with the peculiarities of the paternal organism (and on the influence thereby exerted by the male on the constitution and reproductive powers of the female); (*b*) as influenced in its development by mental states in either parent; (*c*) as the channel of transmission of constitutional syphilis from the male to the female parent. The book also includes a statement of Count de Strzelecki's law of relative sterility. The word "inoculation" is used in its proper and literal sense of *grafting*, and the chief facts in the book are those which may be taken to show that a mother may acquire through the fœtus the peculiarities of the father, so as to transmit them to future offspring, and that a woman may live with a syphilitic (secondary syphilitic) husband, and remain uninfected till she becomes infected through the fœtus. We are surprised to hear that these theories are little known; we were under the impression that they were generally known and accepted. It appears that the former of them was first propounded in 1849 by Mr. James Macgillivray of Huntly, a veterinary surgeon in Aberdeenshire, and that the latter was first set forth by Dr. Ramsbotham in a clinical lecture on Abortion in 1835. The author's essays are amplifications of them. The book is interesting as a record of the progress of a

subject. The essays are obviously the work of a highly educated and scholarly person; of their matter, some has long since been incorporated and assimilated, some has gone the way of Count Strzelecki's "law."

Companion to the Latest Edition of the British Pharmacopœia. By PETER SQUIRE. Revised by PETER WYATT SQUIRE and ALFRED HERBERT SQUIRE. Fourteenth Edition. London: J. and A. Churchill. 1886.—Squire's Companion has reached a fourteenth edition, a striking proof of its popularity. The work was originally written by Mr. Peter Squire, and the first edition appeared in 1864. Since his death in 1884 it has been edited by his sons. The present issue has been brought into accord with the last edition of the British Pharmacopœia. It seems almost absurd to speak of it as a "Companion" to the British Pharmacopœia, seeing that it is commonly used as a substitute for that work. It is so thoroughly practical that it is of the greatest use, not only to chemists and those engaged in dispensing, but to physicians and prescribers generally. The amount of information it contains is really astonishing, much of it being quite new and original. The article on Belladonna, for example, is apparently almost entirely rewritten, and contains a great deal that is not only novel but thoroughly practical. On the first page we find an excellent account of the Abrus precatorius, with a selection of formulæ from Shoemaker and others. On the next page there is much that is interesting about emulsions, and so on throughout the whole book. We have noted seventy-two pages which seem to have been entirely rewritten for this edition. The faults and omissions are few and far between, but we may mention that we do not find picrotoxine in the index, and that the note on pure terebene is most incomplete. The account of the therapeutic action of nitro-glycerine is not strictly accurate, and we doubt if the credit of its introduction should be assigned to Dr. Ringer. A good formula is given for the preparation of syrup of wild cherry bark, now so extensively employed as a flavouring agent. The whole edition has been most carefully prepared, and fully maintains the high reputation of the work for care and accuracy.

Anatomie menschlicher Embryonen. Von WILHELM HIS. III. Geschichte der Organe. Mit 156 Abbildungen in Text und Atlas. Leipzig: Verlag von F. C. W. Vogel. 1885.—The contents of the third part of this interesting and valuable work concern the development of the human embryo to the end of the second month, as regards the alimentary canal, the mouth with the various cavities connected with it, the nose, the lower jaw and neighbouring parts, the front wall of the mouth and pharynx (thyroid body, entrance to the larynx and tongue), the cranial nerves and their relation to the segments of the head, the muscles of the head, the salivary glands and teeth, the special development of the appendages to the thyroid body (ductus thyreoglossus, lingual and thyroid ducts), the thymus, the development of the neck, the heart, the arch of the aorta, the modification of the great primitive cardiac veins, the external ear, and the umbilical cord. The method adopted has been that by consecutive sections, a most laborious process, but one which gives certain and trustworthy results. The volume, indeed, represents months and even years of work. The text is illustrated by 156 figures, and the Atlas contains 15 beautiful plates. The writing, as well as the illustrations, bears the stamp of earnest and truthful description, and the whole work forms a contribution to human embryology of the highest scientific as well as practical value.

The Baths, Bathing, and Attractions of Aix-les-Bains, Savoy. By W. WAKEFIELD, M.D. Pp. 223. London: Sampson Low and Co. 1886.—In this Guide to one of the most important health-resorts in France, the author does not profess to go into any detail respecting the class of cases which might be advantageously sent to it for treatment. He has endeavoured rather to "give the members of the medical profession and the public some general information under the various heads, 'what the waters of Aix are good for; their administration; what kind of a place Aix is; how and where found; what the visitor should do when Aix is reached.'" The book is therefore more intended for the public than the profession, though it contains much information which will be found useful to the latter. The advice he gives to the invalids is judicious, and especially his caution against "the well-meant but hurtful advice of those amateur physicians, so plentiful at all thermal centres, who, having undergone a course of treatment themselves, imagine they are perfectly qualified to lecture or advise others as to the proper course to be pursued." The latter half of the book consists of an account of the numerous places of interest in the vicinity of Aix and the means of visiting them. It appears to have been carefully compiled, and will doubtless prove very useful to those health-seekers who are able to take a moderate amount of exercise, and still more to those in health who have accompanied them, and who are apt to weary of the monotony of a residence in a watering-place, however beautiful it may be. They will find abundant variety in the walks and drives sketched out for them.

Carlsbad and its Environs. By JOHN MERRYLEES. With a Medical Treatise on the Use of the Waters, by B. LONDON, M.D. Pp. 199. London: Sampson Low and Co. 1886.—*Guide to Carlsbad.* Edited, under the authority of the Mayor and Town Council of Carlsbad, by W. SCHACHT and Co. Pp. 37. London: Trübner and Co. 1886.—The first of these works is a very readable guide-book for the use of English-speaking visitors to Carlsbad. It appears to contain all the information necessary to enable them to find their way there, to locate themselves comfortably, and to go through the usual course of treatment advantageously if invalids, or to pass the time of their visit pleasantly if in good health. The latest analysis of the principal springs, which are sixteen in number, is given, and may be found useful to the profession when called upon to advise patients as to the selection of a watering-place. The second part—the Medical Treatise—appears to have been written more for the use of the laity than of the profession, and might, we think, have been judiciously curtailed and made much less technical in its language. A good index would have added materially to the value of the book. Schacht's Guide does not give any professional information regarding the properties of the waters, but it contains all that is necessary for persons intending to visit Carlsbad respecting the various routes by which it may be reached, the regulations affecting the letting of apartments, the tariff for carriages and other means of locomotion, and the course to be pursued in the event of any dispute arising with lodging-house keepers, cabmen, &c. It has the advantages of being short, clear, practical, and portable.

Bright's Illustrated Guide to Bournemouth, Christchurch, New Forest, Poole, Wimborne, Corfe Castle, &c. By C. H. O. CURTIS. Pp. 182. Bournemouth: Bright. 1886.—This will be found to be a very useful guide to those who select Bournemouth either for a holiday retreat or as a health resort. The "general description" is rather too much in the florid style which seems peculiar to guide-books, and the detailed account of the various churches is unnecessarily long, occupying nearly thirty pages; but the book gives all the requisite information about Bournemouth itself and its suburbs, and a good account of the numerous places of interest within easy reach of it. A brief chapter on the climate of Bournemouth by Dr. J. Davison, which contains tables of the monthly temperature, humidity, and rainfall, extending over

a series of years, may be found useful in considering whether it is likely to prove a suitable health-resort in particular cases.

Ambulance Work: Questions and Answers upon "First Aid to the Injured." By J. W. MARTIN, M.D., and J. MARTIN. Pp. 47. London: Baillière and Co.—This little book has been compiled by the authors, not with a view to supersede, but to supplement, Shepherd's "First Aid to the Injured." The form of question and answer may probably be found an advantageous method of conveying instruction, and the cautions given against the pupil supposing that by having attended a course of ambulance lectures he has become qualified to take the place of the physician or surgeon are judicious. We are afraid, however, that some of the answers, especially in the anatomico-physiological portion, are beyond the general grasp of many of those for whom the book is intended. Nor are we quite satisfied with all the practical portion. For instance: "Q. If a child has swallowed a small coin, a bean, or other small, hard body, what might you do with success?—A. Hold the little patient up by the heels, inverting him." There might be considerable risk attending the carrying out of this process of inversion under such circumstances, unless performed by competent hands.

Dictionary of National Biography. Edited by LESLIE STEPHEN. Vol. VII. London: Smith, Elder, and Co.—The seventh volume of the Dictionary of National Biography, which has just been published, extends from "Brown" to "Burthogge," and its contents, in accuracy and literary polish, fully equal those of the preceding volumes. The favourable opinion which we expressed in our last notice of this publication has not been in any way diminished, and we congratulate Mr. Leslie Stephen on the manner in which he is performing his necessarily responsible task.

John Leech's Pictures of Life and Character from the collection of "Mr. Punch." London: Bradbury, Agnew, and Co.—We have received the first and second parts of this work, which is now being published in monthly instalments. It is well got up, considering the lowness of the price at which it is offered, and when completed will contain nearly 4000 sketches by the great master of English caricature, illustrating every section of social life from 1842 to 1864. John Leech's sketches are so familiar that it is unnecessary to describe them, and to everyone who does not possess a complete and handy copy of them we can advise the purchase of the collection which forms the subject of this notice.

Medical Annual, 1886. London: Kimpton.—The proprietors of this Annual have devoted several pages of the contents to a summary of the recent advances made in medicine and surgery, which will be found useful by members of the profession. The remainder of the volume is occupied with the subjects which formed the contents of the Annual for 1885, and affords a useful source for reference upon many questions of interest to medical men.

PRESENTATIONS.—On the 22nd ult., on the occasion of their annual dinner, the members of the West Kent Medico-Chirurgical Society presented Dr. Prior Purvis, of Blackheath, with a drawing-room clock and two vases bearing the following inscription:—"Presented to Prior Purvis, M.D. Lond., by the members of the West Kent Medico-Chirurgical Society, in recognition of his valuable services as treasurer extending over a period of thirty years." Mr. D. A. Fraser, M.R.C.S., L.S.A., has also been presented with a clock by the inhabitants of Burnham, as a mark of their approval of the manner in which he has discharged the duties of medical officer of health to that town.

ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.—Founder's Day at this institution was celebrated on the 6th inst., when a large gathering of the friends and old pupils of the College attended to witness the distribution of prizes.

New Inventions.

A NEW LITHOTRITE.

IT has occurred to me, during the operation of lithotrity, that having with much patience seized a fragment of stone, I have again lost it in the attempt to lock the instrument, the morsel being of such size that the threads of the screw would not bite. An inspection of most old lithotrites will show that this must be no uncommon accident, as it will be seen that the edges of the male screw are burred from the force used to make it lock; and although theoretically it would appear impossible to remedy this defect, as a fresh catch would be necessary at every point of the screw, practically such perfection is needless, and the instrument (which has been ably made from my design by Messrs. Down Brothers of St. Thomas's-street) answers sufficiently well. Its novelty consists in two locks, so set that whenever the crests of the female screw of the first impinge directly on the crests of the male screw, the second lock can be brought into play by

moving up the catch with the thumb without altering the position of the operator's hands. By this arrangement the pitch of a screw like this of fourteen threads to the inch is reduced to one of twenty-eight, and the chance of jerking away the stone is proportionately lessened; and although the weight and length of the handle are increased, I consider that no disadvantage, as it affords a firmer hand grasp.

East Rudham. ALAN REEVE MANBY.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.—The council of the Society had arranged for a Colonial and International Congress on Inebriety in London during the current month, but the General Election has made postponement desirable. The Congress will meet when Parliament sits.

THE LANCET.

LONDON: SATURDAY, JULY 10, 1886.

THE College election, which is just over, will be held remarkable in times to come, because the Fellows, for the first time, have elected a general practitioner into the Council; and, secondly, because they have elected two provincial in face of some very eligible metropolitan Fellows. As regards Mr. SIBLEY'S election, the Council may be fairly congratulated. Apart from the obvious desirability of the great mass of the profession—the general practitioners—being directly represented, Mr. SIBLEY cannot fail to be a *persona grata* to the Council. His well-known business aptitude and his liberal and tolerant views specially qualify him for his office, and will prove of eminent service in the Council chamber. We rejoice, however, not on these accounts alone, but because in this departure from routine we recognise a wise and advancing liberalism among the Fellows which augurs well for the future of the College. This liberalism is further illustrated in the simultaneous election of two provincial Fellows—a fact which has not previously occurred, as far as our memory serves us. At the present, therefore, the Council contains four members—a still too small, but a juster, proportion of provincial representation than has obtained at any previous period.

It was natural that Mr. LUND should head the list, and we are pleased to congratulate him, and on his majority over the next and following candidates. His votes, moreover, included only one plumper, Mr. SIBLEY having received three. To plump is usually a sign of personal over general considerations, of having zealous friends rather than special merit. It detracts from rather than adds to a candidate's success. Besides, it interferes with that appreciation of the esteem in which other candidates are held, which is as useful to the candidates themselves as it is interesting and serviceable to the voters at large. It may also be argued that Fellows are not competent to vote when they thus shirk the responsibility which a more orthodox division of their votes implies. Mr. BERKELEY HILL, Mr. REGINALD HARRISON, and Mr. WILLETT, with each ten plumpers, are no better or worse off than they would have been without them. On the whole, we must congratulate the Fellows, and the Members of the College also, on the result of the past election. The Council as at present constituted is more largely liberal and progressive than at any previous period; and we may look forward hopefully to the future for the realisation of those reforms which we have so often and so urgently advocated.

Following precedent, Mr. JOHN WOOD would have become President; it is not surprising, however, that Mr. SAVORY has been re-elected in acknowledgment of his valuable services, of the admirable manner in which he has discharged his presidential duties, and also of his position and eminence as a surgeon. We congratulate Mr. SAVORY on being the first President on whom the honour of re-election to the presidential chair has been conferred since the name of the head of the College was changed from that of "Master." The only approach to a parallel case was in 1831, when Mr. ROBERT KEATE was chosen President after having occupied the chair part of the previous year in consequence of the death of his predecessor, Mr. R. C. HEADINGTON, before the completion of his term of office. Mr. WOOD'S turn is merely postponed for a year.

We can only express a hope that the new Council will use their best endeavours to bring about with all celerity an adjustment of the present differences subsisting between them and a large number of leading Fellows, and that they will also find means of enlisting the Members and their goodwill in the development and service of the College by timely and judicious concession in the directions sought by both classes of their constituents.

WE have recently given account of Mr. W. H. POWER'S report upon the prevalence of scarlatina among the consumers of milk from a farm at Hendon, and have expressed the conviction that the evidence which he adduced to show that a cow ailment caused the malady in man must be accepted as sufficient for this purpose. This evidence, it is true, was merely circumstantial, but the marked coincidence in the behaviour of the affections among the cows and among the consumers respectively placed it beyond reasonable doubt that the one was responsible for the other.

We have now before us the report of Dr. KLEIN upon his own share of the investigation which was undertaken by the Medical Department of the Local Government Board, and again we find very strong corroboration of the conclusions at which Mr. POWER had arrived. It was Dr. KLEIN'S duty to consider the subject from a different point of view than that taken by Mr. POWER, and to test by such experiment as was possible the question whether the cow malady was a communicable disease, and whether in its results upon this animal there was indication of its being concerned in the production of scarlatina in man. The subject was not altogether a new one. In the year 1882 scarlet fever had been distributed with milk in the parishes of St. Giles and St. Pancras, and this milk had been received from a country farm where the condition of one of the cows was noted by Mr. POWER, who conducted this inquiry. This cow had recently come into milk, and was evidently not in good health, as was shown by the fact that its hair had been shed in patches. In the absence of other evidence as to how the milk received infection, it was felt desirable that experiments should be made to show how far it was possible to inoculate cows with human scarlatina. It is unnecessary to refer more in detail to the lessons which were then learnt than to state, in the words of Dr. BUCHANAN, that it was found that a definite disease was producible in the cow by means of scarlatina infection, and that most readily when the cow was in milk.

A noticeable condition of the cows of the Hendon farm was the shedding in patches of their hair, resembling in this respect the cow which had attracted Mr. POWER'S attention in the previous investigation; but at Hendon were the further symptoms of vesication and ulceration of the teats and udder, supplying Dr. KLEIN with material for the prosecution of further inquiry. This virus was used for the inoculation of certain calves, with a result which clearly demon-

strated that the affection was transmissible from one animal to another, producing effects which resembled the disease found in the Hendon cows. Further, the virus was cultivated in nutritive gelatine and other suitable materials, producing a micrococcus which grew freely in these substances in a manner resembling that of the streptococcus of foot-and-mouth disease, but differing from this organism, when cultivated in milk, in the fact that the latter does not affect the fluid character of the milk, whereas the former turned it solid. The inoculation of two calves by a third subculture in agar-agar mixture of the streptococcus of the disease among the Hendon cows led to the most instructive results. One animal was found dead twenty-seven days after inoculation. An examination of its body gave evidence of marked morbid changes in the peritoneum and internal organs, the kidneys were large and much congested, the liver greatly congested, and also the organs of the throat. The second calf was killed some nine days later, and very similar appearances were found to exist. There was, moreover, a disease of the skin and in the mouth which was similar to that found in one of the Hendon cows which was the subject of observation and in one other calf which had been inoculated. Writing of the microscopical appearances, Dr. KLEIN notes the close resemblance of the minute anatomical characteristics of the eruption to those of human scarlatina, and particularly the disease in the liver and in the kidney. This latter organ, he states, 'corresponds so closely with the kidney of an acute case of human scarlatina, that sections made of the one and compared with those of the other show no difference whatever."

Dr. KLEIN, moreover, found some reason for believing that the milk within the udder of a cow suffering from this disease did not contain the micro-organism, but that it became infected at the moment of milking from the ulcers on the teats; and he points out that the organism would find in the milk a good medium in which to multiply, and that the milk would then practically correspond to an artificial culture of the streptococcus, such as was found capable of setting up a general disease when inoculated subcutaneously into calves. The feeding of animals with food containing this virus has not yet been attempted, and it is obvious therefore that the experiments are as yet incomplete, and even those which have been performed deserve repetition. But enough has already been learnt to confirm the opinion that Mr. POWER'S labours have brought us face to face with the origin of scarlet fever in man, and that the prevention of this fatal disease is rendered a distinct possibility. It is therefore with much satisfaction we are told that during the forthcoming year part of the grant for scientific purposes will be devoted to further study of the relations which exist between human scarlatina and diseases of animals.

The publication of these reports will doubtless give much impetus to the investigation of animal diseases, and the Local Government Board have conferred a service both on the milk producer and on the milk consumer in making them available for general use. A short account of a paper on the clinical aspects of the disease, by Dr. CAMERON, the medical officer of health for Hendon, is appended to the reports of Mr. POWER and Dr. KLEIN, and the whole is prefaced by some remarks by Dr. BUCHANAN, which will add much to the usefulness of the publication.

TWO excellent articles appear this month in the *Contemporary* and *Macmillan* respectively, one on food, the other on feeding. Both are written by laymen, and both exhibit a considerable acquaintance with the subject on which they write. The article in the *Contemporary* deals with the all-important question of a cheap and wholesome meat supply for the people. It is written by the Rev. FREEMAN WILLS, a clergyman, who, finding meat a luxury unknown to many of his parishioners owing to the prohibitive prices charged by the butchers, felt constrained to do something to interfere with this state of semi-starvation. So in order that "the poor seamstress, or the old body supported by the slender wages of her factory-boy son, might have a good meat dinner on Sunday," he determined to become a purveyor of meat in his Finsbury parish. His first butcher's shop was a schoolroom, and a few frozen sheep formed the stock. These had to be procured at least two days beforehand so as to become unthawed and fit for cooking by Sunday. But the chief objection to this arrangement was the difficulty of disposing of the remnants, that remained over when the best parts had been disposed of. It therefore shortly became necessary to open a regular butcher's shop, and at this shop a trade of over fifty pounds a week was soon carried on. So successful did the experiment prove that two other shops were quickly added, and recently a fourth and fifth. We congratulate Mr. WILLS on having inaugurated and carried to a point of complete success a most useful and beneficial work—useful and beneficial not only in social, but also in its moral aspect. Much of the craving for alcoholic drinks amongst our lower classes arises from the want of a sufficiently stimulating food for body and brain; but "meat is dear whilst gin is cheap"; and, as Mr. WILLS remarks, the unsatisfied system craves for something comforting; "so dear butchers make full gin-shops, and the butchers help the publicans." Now that the way has been shown, is it too much to expect that the clergy throughout England will take steps to provide their poorer parishioners with wholesome meat at little above cost price. They may shrink from the encounter with tradesmen, or perhaps think it derogatory to the dignity of their cloth, but they must remember it is part of their pastoral duty.

The article in *Macmillan* is of a different character, though on an allied subject, and the "Philosophy of Diet" is treated by "A Layman" with a pleasant lightness that those who write from a somewhat superficial knowledge often impart to the gravest and driest subjects. Many of his remarks, however, are characterised by a caustic shrewdness well worthy the attention of the profession. With regard to the question he raises respecting the care our ancestors took of their digestion, he thinks that at one time they did so, though at a later period they were sadly reckless in such matters. But this can hardly be attributed to neglect of professional teaching, for if the seventeenth and eighteenth centuries had such prophets as CONARO and CHEYNE, ABERNETHY and JEPHSON preached strenuously against the dietetic errors prevalent at the commencement of the current century. The writer is hard on those "folk who will not so much as take a pill at their own venture, and never

fulfil an invitation to dinner without a visit to the doctor next morning," and hints that the answer given by his physician to Falstaff through the page would be hardly wise to-day, lest we should hurt the susceptibilities of our patients. But the conditions differ. Falstaff's physician could go no further than inspection, and consequently no further than a declaration that, notwithstanding the water seemed a good water, other diseases might be present that in no way gave indication through the urine. Now, had Falstaff come under the hand of a modern uroscopist, the cause of his disorder would have at once been shown by chemical means, and the diagnosis chronic Bright's disease arrived at, and the old knight's life prolonged by submitting to the dietetic restrictions that would have been imposed. For our own part, when any person finds that "he cannot fulfil an invitation to dinner" without a feeling of discomfort the next morning, we should certainly not drive him from the door as "an inquisitive fool"; not because we "cannot afford to," but simply because we know that simple dyspepsia is often the earliest symptom of chronic disease of the kidneys or of that insidious and now common disorder, diabetes. And although the water to appearance may seem to be a good water, still the application of the heat or copper test may reveal hitherto unsuspected albumen or sugar. Again, too, with regard to the writer's belief that in matters of diet, exercise, and habit a man must be his best physician. We should like to know how and in what manner this experience is to be gained. Take, for instance, a very common example. A medical man tells a patient to live chiefly on milk: in nine cases out of ten the patient will reply, "Oh, but milk always disagrees with me." On inquiry we find that the experience has been founded, perhaps, upon one attempt; a pint of milk may have been taken when thirsty, and, on a stomach unaccustomed to it, have given rise to acidity, griping, and flatulence. But let us instruct the patient to begin with skimmed milk, till the stomach can deal with unskimmed, to add a few drops of lime-water to neutralise any acid that may be developed, and only to take small quantities at a time; we soon find the personal experience reversed, and that milk agrees with nine-tenths and disagrees, perhaps, with only one-tenth, if even with that proportion. Lastly, as to the great panacea—the simple rule of moderation. Who shall define its limits? For whilst some may thrive like CORNARO on twelve ounces of solid food, there are others, as PROUT pointed out many years ago who can only attain to moderate longevity by living well, and who, to maintain even an ordinary level of health, have to indulge in large and frequent meals.

OUR own correspondence columns and those of our contemporaries show a considerable amount of dissatisfaction with the readiness of some consultants to receive regular visits from patients who have been referred to them by their usual medical attendants—in other words, to become their ordinary instead of their extraordinary advisers. Mr. KESTEVEN's letter, which we publish to-day, is in point. To such length has this dissatisfaction grown in some minds, that it has actually been proposed to create "an Association" for all who share it and wish to promote it. This is an age of associations, and one more or less would not make much difference; but we scarcely think that the evil complained of needs an association for its cure, and we have some doubt whether an Association would be the best means of bringing about a better state of things. Let us clearly understand the thing complained of. It is that consulting physicians and surgeons frequently receive patients and treat them as general practitioners. Sometimes small fees are taken. No reference is made to the regular adviser; his co-operation is not sought; he is not informed of the transaction, which, so far from being an individual one, becomes a habit, so that, in respect of the patient, he ceases to be the patient of the general practitioner and becomes that of the consultant. It is said that young consultants are most apt to err in this matter; but they are by no means the only delinquents, and it is alleged, apparently on good grounds, that men of world-wide reputation are not above absorbing a patient altogether and withdrawing him from the care of his family attendant. To state such a case is to condemn the practice complained of. We are not unmindful of the exigencies of young consultants; they never were more numerous, and they certainly never were more meritorious than they are at the present day. London alone would supply young consultants below forty years of age by the dozen, who could give a first-rate opinion or do a capital operation in a first-rate way in almost any case of medicine, surgery, or midwifery. They must live, and they must keep up good establishments; and, as a rule, they are as honourable as they are efficient. We are not prepared to say that they should never see a case independently. Such an absolute dictum would scarcely be found in PERCIVAL, whose chapter "on the conduct of Physicians towards Apothecaries" may always be read with advantage and pleasure. *A fortiori* such an iron rule could not be laid down now; but we are, nevertheless, prepared to say that the young consultants who are most punctilious in cultivating true *consultations*—i.e., the real comparison of notes between the general practitioner on the one hand, and the consultant on the other, and who are most anxious to make the general practitioner a real sharer in the treatment and in the credit of the case—will, in the long run, best promote not only his own interests, but those of his patients and of the public. We shall be excused for reproducing here a few sentences from PERCIVAL, only making this important observation, that the difference in function and in education between the apothecary of his day and the general practitioner of the present all goes to emphasise the duty which this classical author enjoins on physicians in respect of the ordinary advisers of those who consult them:—

"The apothecary is in almost every instance the precursor of the physician, and being acquainted with the rise and progress of the disease, with the hereditary constitution, habits, and disposition of the patient, he may furnish very important information. It is in general therefore expedient—and when health or life are at stake expediency becomes a moral duty—to confer with the apothecary before any decisive plan of treatment is adopted, to hear an account of his whole experience concerning the *jurentia* and *lædentia* in the case. Nor should the future attendance of the apothecary be superseded by the physician; for if he be a man of honour, judgment, and propriety of behaviour, he will be a most valuable auxiliary through the whole course of the disorder, by his attention to varying symptoms, by

the enforcement of medical directions, by obviating misapprehension in the patient or his family, by strengthening the authority of the physician, and by being at all times an easy and friendly medium of communication."

Between such physicians and such general practitioners there can be no serious misunderstanding. The limited means of the patient may not always admit of a joint attendance. The patient has undoubtedly the right, too, to take an independent opinion. But such instances will not interfere with the perfect trust which honourable men in different lines of practice place in each other. It must be allowed that there are few absolutely pure consultants in any community—that is to say, few practitioners—who absolutely refuse to prescribe for patients or to give a prescription or opinion without the presence of the regular practitioner. It must also be allowed that in the other direction the line of demarcation between consultants and general practitioners is not sharply defined, and that many general practitioners do a considerable consulting practice. All this does not alter the obligation of the most scrupulous care resting on the physician to uphold the reputation of his professional brother, and, so far as he possibly can, to insist on communicating and co-operating with him in every case, especially in those cases which the said brother has referred to him. The physician or surgeon who can appropriate such cases, or lightly express or listen to any disparagement of the regular adviser, must be indeed defective in his moral constitution. No Association is needed for his condemnation; the unanimous voice of an honourable and united profession pronounces it.

Annotations.

"Ne quid nimis."

HEALTH OF THE TROOPS IN EGYPT.

WHILE we are disposed to exercise considerable reserve in accepting the sensational statements which have appeared in some of the daily papers respecting the excessive rates of sickness and death among the troops serving in Egypt, we have reason to believe that in the frontier field force they have been abnormally high. There is no doubt that enteric fever has prevailed to a very considerable extent, and in a fatal form, among the men on the frontier, and especially at Assouan. The chief factors in this have been the high temperature, the absence of active employment and the consequent continued occupation of an encampment on the same ground, the age of the men composing the force, and probably the emanations from the alluvial soil on the banks of the Nile. We are disposed to think that an undue share of the blame for this unhealthiness has fallen to Assouan, from various circumstances. When the reduction of the force was decided upon the troops from the various outposts were concentrated there, bringing their sick with them. As they were moved onwards, the sick—at least the severe cases—were left behind, and those which terminated fatally were borne upon the reduced strength of the Assouan garrison. The return also, extending over a limited period only, and with a small force, is likely to give rise to an erroneous estimate, owing to the fluctuations which occur under such circumstances. That a heavy death-rate, however, has prevailed since the commencement of the hot season is too true, and the question may be fairly raised, Has it been unavoidable? If the occupation of the frontier by Europeans was a military necessity, it is difficult to see how this unfortunate result could have been altogether prevented. We believe that every reasonable precaution has been taken in the sheltering, clothing, and feeding of the men. The only questions seem to be whether a more healthy place than Assouan could not have been found which would have equally answered the military requirements? and whether every necessary precaution was taken to preserve the men in health when obliged to occupy this unhealthy spot? We have reason to believe that, so far as the medical department has been concerned, this was done; that Surgeon-General Nial has exercised a careful and judicious superintendence over the sanitary arrangements, and that the Director-General has spared no pains to have the recommendations which were brought under his notice efficiently carried out. We have also reason to believe that the recommendation to reduce the number of Europeans and replace them so far as practicable by native troops, when these could be relied upon, was pressed upon the attention of the military authorities on the spot, by whom alone the extent to which such a measure was possible could be determined. The removal to Cyprus of men who have suffered from fever, and who were unable to regain their strength in the place where they became affected, has been sanctioned and carried out freely. We trust that the changes which have been made with this view, and the withdrawal of the men, so far as practicable, from the unhealthy localities, may be found effectual in checking the sickness and mortality, and that it may be possible to replace them by trustworthy Egyptian soldiers, who may probably be better able to resist the local causes of disease.

THIRST AND DRINKING IN HOT WEATHER.

So far as the mere sensation of thirst is concerned, there can be no question that it is a mistake to drink too much or too frequently in hot weather; the fluid taken in is very rapidly thrown out again through the skin in the form of perspiration, and the outflow being promoted by this determination toward the surface, a new and increasing demand for fluid follows rapidly on the successive acts of drinking and perspiring, with the result that "thirst" is made worse by giving way to it. Meanwhile, it must not be forgotten that thirst is Nature's call for fluid to replace that lost by cutaneous exudation in warm weather; and if the demand be not met, what may be regarded as the residual fluid of the tissues must be absorbed or the blood will become unduly concentrated. Now, this absorption of the residual fluid of the tissues has the obvious drawback of taking into the blood in a concentrated instead of a dilute form the products of disassimilation, together with the absorption of some excrementitious matters which would probably not be taken up at all if the blood were not abnormally dense. It is necessary to recognise that harm may be done by a process of self-poisoning with excrementitious matter, retained, or taken up, in default of an adequate supply of fluid in the form of drink to dilute and wash it away. There is, moreover, another disadvantage of the non-drinking method of suppressing thirst. It is especially needful for the preservation of health that the metabolism on which normal nutrition depends should be rapid and free in hot weather. If the organic temperature is, or more accurately if the several and complementary temperatures of the organism are, to be maintained at the health point, tissue-change must be favoured, and such modifications of body-heat as may be effected by flushing and evaporation must be facilitated. In short, if we refuse to drink when we are thirsty simply because we shall thirst again, we are imposing a restraint on the activities by which Nature is endeavouring to preserve the health. We are doing precisely what the irrational homœopaths do, or did, when refusing fluid to cholera patients or limiting the drink of those who

suffer from fever. Of course, like produces like in the matter of thirst from any cause, but the like produced is natural; and it is, or rather was, strange to note that in one of the earliest notorious cases of malpractice by persons calling themselves homœopaths in England the dogma "Similia similibus curantur" should be flung to the winds, and drink refused to a patient dying of liquid diarrhœa, because, forsooth, the taking of fluids increased the diarrhœa and made him more thirsty! We venture to hope that those who are zealously urging the policy of refusing to quench their thirst in this hot weather because "drinking makes people more thirsty" will reconsider their policy from the physiological standpoint, and that they will recognise that to thirst and drink, and perspire and drink again, are the natural steps in a process by which Nature strives to maintain the integrity of those organic changes which the external heat has a tendency to impede. The natural and true policy is to supply an adequate quantity of fluid without excess. Therefore do not abstain from drinking, but drink slowly, so as to allow time for the voice of Nature to cry "Enough." There is no drink so good as *pure* water. For the sake of flavour, and because the vegetable acids are useful, a dash of lemon-juice may be added with advantage. The skin should be kept fairly cool, so that a sufficient quantity of the fluid taken may pass off by the kidney.

THE WIRE SUTURE FOR FRACTURE OF THE PATELLA.

DR. DENNIS, of New York, has published in the *New York Medical Journal* a very vigorous defence of Sir Joseph Lister's practice of wiring together the fragments in cases of transverse fracture of the patella. He points out, by way of introduction, that the birthplace of this operation was America; the earliest recorded case was operated upon by Rhea Barton in 1834; he was followed in 1838 by McClellan; and then, many years later, Cooper, Logan, and Green adopted the method. Dr. Dennis urges that the shortness of the period of treatment, measured by weeks only, the great superiority of result—bony union and a useful joint,—and the proved safety of the operation, are three unanswerable claims in support of this operation. Like all others who have practised this procedure, he lays great stress upon the precision with which all the details of aseptic surgery are carried out, and he urges that only those who are well versed in these details should attempt the operation. The mortality in the last sixty-nine cases collected by him has been at the rate of only 1·4 per cent., and he believes that even this may be diminished. A very useful table of 187 cases is appended to the paper, and a short account is given of many cases under Dr. Dennis's own care. The paper altogether is a valuable contribution to a surgical discussion which is not yet closed.

EXTENSION OF THE CHOLERA PREVALENCE.

LAST week we expressed a fear that with the month of July a change for the worse might be anticipated as regards cholera in Italy. The extension of the disease which we ventured to foretell has already come about, and it is to be feared that it may be but a first step in the direction of a still wider diffusion of the infection. Whilst in Brindisi itself the progress of the disease is steadily maintained, the neighbouring province of Lecce and the surroundings of Brindisi are the subject of a wide diffusion. On July 4th we learnt that in Latiano and Francavilla, with a total population of some 13,000, there had then been 214 cases of cholera with 59 deaths, and on the 6th there were 26 deaths at Latiano, 34 at Francavilla, and 4 at San Vito; and in the province of Lecce the total deaths recorded between June 30th and July 3rd amounted to 290. And whilst this extension has been going on in the south of Italy, the disease still causes a daily fatality in the north. Venice remains infected, and in the neighbouring province of Ferrara, where Codigovo was first attacked, a continuance of the disease is still recorded. And not only so, but Fiume in Austria has received the infection, a daily fatality taking place there. With a continuance of the hot weather this state of affairs can hardly be expected even to remain at a standstill, and hence a further diffusion may at any time be expected.

CONGRESS OF NATURALISTS IN BERLIN.

THIS year's assembly of naturalists and physicians in Berlin (writes our Berlin correspondent) promises to be on a grand scale. It has been decided, I learn, through the initiation of the German Colonial Association, to form a special section for Medical Geography, Climatology, and Hygiene, in which observations and personal experiences made in foreign countries, especially in the tropics, are to be discussed. The German Colonial Association has undertaken to make the necessary preparatory steps. Geheimer Medicinalrath Hirsch is the chairman for the formation of such a section, the co-operation being secured of competent men, who in the general interest would be willing to assist personally at these discussions. The following are the subjects which will occupy the attention of the section: 1. Acclimatisation in general. (*a*) The fitness for acclimatisation of special races; (*b*) Hygiene of the white races in the tropics. 2. Education; capability of training the natives to work. 3. Sanitary and educational statistics in respect of German colonies and dominions under German protection. Professor Waldeyer, chief of the Anatomical Section, has proposed the appointment of a special session for discussing the subject of Gastrula of the Vertebrata, and offers to introduce the debate by a short report on the results of discoveries up to the present time. Professor Hartmann will conduct the investigation of the anatomico-zootomical collections, for which the building of the old Exchange has been chosen.

ERYSIPELAS IN HELSINGFORS.

DR. LINDEN of Helsingfors, who has had opportunities for the observation of a large number (785) of cases of erysipelas in both hospital and private practice during the last few years, has written a paper summarising the results of his experience in Langenbeck's *Archiv*. The disease is, he says, certainly of an infectious character, and therefore it is necessary to isolate erysipelatous patients in a surgical hospital. The duration and severity of the attacks are always greater in buildings containing several such cases. No connexion can be traced between the number of surgical operations and the frequency of erysipelas; and it does not appear that the number of patients in a hospital exerts any influence over the disease. Neither is any effect produced by different seasons of the year, the atmospheric pressure, the quantity of dust in the air, the level of the ground-water, or the strength of the wind. Sudden changes, however, of pressure or temperature seem to favour the development of erysipelas. The development of the traumatic form depends less on the severity of an operation than on the contact of pus and other septic matter with the wound. With regard to the duration of the disease, Dr. Linden's observations correspond closely with those previously published by Rizmann—the mean number of days being 7 when the arm is first attacked, 7·3 when the disease begins in the head, 8·3 when it develops on the legs, and 9·5 when the trunk is first attacked. The duration is unfavourably influenced by the development of the disease after an

operation in weakly patients. Cases of traumatic origin last longer than those which arise idiopathically. Cicatricial tissue is more susceptible to erysipelas than healthy skin; the same may be said of portions of the surface which are subjected to any mechanical pressure. Relapses occurring within two or three months of the original attack usually run a more favourable course than the original attack, but those occurring after seven or eight months' interval are uninfluenced by the first attack. With regard to treatment, Dr. Linden obtained the most satisfactory results from injections of alcohol. He did not, however, find that Huter's plan of injecting an aqueous solution containing only from 2 to 5 per cent. of alcohol was of much use, but employed equal parts of alcohol and water, injecting one to three syringefuls in the same way as carbolic acid is employed hypodermically. As a prophylactic against erysipelas he considers Lister's dressings as of great value.

THE PRINCESS LOUISE AT UNIVERSITY COLLEGE.

IF the hospitals of London are neglected by the great mass of the inhabitants, it is certainly not the fault of the Royal Family, the members of which are ever setting a good example by taking a lively personal interest in the welfare of our great medical charities. The kindly visit of the Princess Louise and the Marquis of Lorne to University College on the 2nd inst. will long be gratefully remembered, not only by those who are personally interested in the hospital, but by the inhabitants of the district. Her Royal Highness arrived at the hospital at 11.30, and was received by Mr. Prevost, the treasurer, Dr. Wilson Fox, Mr. Berkeley Hill, and other members of the medical staff, and proceeded to make the tour of the building, visiting all the principal wards, evincing a kindly sympathy in the sufferings of the inmates, and graciously permitting one of the wards to be named the "Princess Louise." The visit to the hospital finished, her Royal Highness crossed over to the College for the purpose of opening a Bazaar held in the grounds for the benefit of the hospital. Here the Princess was received by the Earl of Kimberley, president of the College; Mr. Cohen, the chairman of the Bazaar Committee; Sir Julian Goldsmid; the Dean of the Faculty of Medicine, and other officials; and after a short opening ceremony her Royal Highness proceeded to make the round of the various stalls, and made purchases at most of them. The Princess expressed her gratification at the picturesque and novel appearance presented by the bazaar; and well she might, for the grounds of University College are singularly well fitted for such a purpose, and with the fine portico for an orchestra, and the stalls arranged in a semicircle in front of it, the general appearance was one not soon to be forgotten. It seems impossible to get money for hospitals without some so-called festival, and, in selecting the form of festival to be held, it certainly seems advisable to choose one which is likely to excite a widespread and, if possible, also a local feeling for the charity. Such feeling sadly needs rousing in regard to the London hospitals, and in arranging this bazaar the Committee have, we are told, received much gratifying evidence of kindly sentiment towards the charity. It is barely two months since the idea of a bazaar was entertained, but, nevertheless, the influx of articles for sale has been beyond all expectations, and it is pleasant to be able to state that presents have been sent from all parts of the country, and very largely from patients and their friends, who have not forgotten the benefits they have received. Local feeling has also been roused, and many of the merchants and tradesmen of the district manifested great willingness to co-operate. On the second day the hospital was thrown open to those who wished to visit it. Large numbers availed themselves of this opportunity, and it is to be hoped that the actual sight of the good work the hospital is doing will convince some, at least, that it is a sacred duty to support such institutions.

THE HEAT.

IT is not really very hot, though we feel it to be so. The truth is that although the natives of, and habitual residents in, this variable climate of ours ought to be especially responsive to changes of external temperature, and to possess the faculty of quickly adapting themselves to its requirements, we do not as a rule enjoy this excellent property of the organism in any remarkable degree. The special disability under which we labour relates to radiation. We are unable to get rid of heat from the skin by simple dispersion. The black man excels us in this respect. His dark skin glows, as it were, with the heat he throws off. A white man, and an Englishman particularly, resorts to the somewhat clumsy physical expedient of cooling himself by evaporation. He perspires heavily, and as the vapour leaves his body its temperature is reduced, or at least kept from rising. The black-skinned man is less dependent on perspiration, and can cover his body with oil, so that cutaneous exhalation is actually impeded, without suffering, simply because the colour of his surface is one which, like the willow pattern plate in the familiar experiment, gives off heat. Again and again the fact we are stating has been questioned; but recently, as scientists are aware, it has been demonstrated. One reason why English people are so ill-prepared to endure either extreme of temperature, although they are accustomed to great and rapid changes, is to be found in the fact that they rely on clothes for heat conservation to an extent and with a constancy in excess of the habit of almost any other people. We "wrap up" and we throw off our clothing more artificially than other folks. The way to develop a faculty of bearing extremes of temperature is to habituate the body to make its own temperature. Those who do not clothe themselves heavily in winter seldom find it necessary to make great changes in their clothing in order to bear the heat of summer.

THE DANGERS OF DUST.

DARKNESS, damp, and dust are potent agencies of disease. Everyone recognises this; but how many fail to adopt its precepts! If there be sermons in stones, surely the summer dust and its dangers would prove a fruitful subject for medical discourse. There is as great a difference between London and country dust as there is between the corresponding muds. Pulverised matter would be harmless enough if it were deprived of its physical property of ready diffusion. The atmosphere is laden and swarms with particulate matter of highly complex nature. Its chief peril to living beings resides in the organic constituents; largely this organic material consists of minute forms of life in a state of latency, only waiting for a spell of heat and moisture and a favourable amount of light, or it may be darkness, to awaken it into activity. The habits of individuals in every class of society, including the "masses," are not calculated to diminish but rather to augment the amount of organic matter in our atmosphere. Mucus, saliva, and humour popularly known as "matter," must be discharged from the mouth and nostrils to the extent of many gallons daily, and not a little of this comes from infective sources; whilst we venture to think that the bulk of it mingles with the dust of our streets and courts. If, as seems not unlikely, consumption is largely caused by "germs," then a very ready theory may be advocated concerning the mode in which the contagium is caught. Who

can estimate the amount of mischief that the shaking of mats may have caused? How many young girls early in the morning on their way to business have, so to speak, received their death-blow whilst inspiring, all unconscious of harm, some of the clouds of dust that every morning greet them? Who can tell? The abatement of this danger and nuisance is a difficulty that almost seems insurmountable. Much may be done by personal habits of prevention.

DR. FLINT'S ADDRESS IN MEDICINE.

ONE of the most remarkable characteristics of the late Dr. Austin Flint was the promptness with which he set about any work he undertook. Accordingly, when he accepted the invitation to deliver the Address in Medicine at the forthcoming meeting of the British Medical Association he prepared the address at once, and it was found all ready for delivery among his papers. The address is published by D. Appleton and Co., having been passed through the press by Dr. Flint's son; accompanying it is a beautiful engraving of the distinguished physician, which is so true to life that all who were privileged with the friendship of Dr. Flint will greatly prize this memorial of him. The address is an attempt to forecast the advances of medicine in the next fifty years. Dr. Flint suggested that organic chemistry will reveal much that is now hidden, and that the application of the telephone and other recently invented electrical machines to medical practice will make our knowledge of disease as portrayed by sound more precise. Advances in bacteriology and in our knowledge of the causes of disease, with a juster view of the value of some of our therapeutic agents, are other gains which seemed to Dr. Flint to be close at hand. He predicted also changes in the style of medical literature—more subdivision and more concentration; changes in medical teaching—less didactic instruction and more demonstration; changes in medical practice—more specialism, which will need to be carefully guarded against the evils attending it. The address is full of interest; great is our regret that its accomplished author was not spared to deliver it, but we are glad that we are permitted to read it. As a literary production it is a worthy close to the many valuable contributions to the literature of medicine by that great and good physician.

POISONING BY PENNY ICES.

ON July 5th an inquest was held at St. Thomas's Hospital on the body of a boy aged eleven who had died at his own home with symptoms of irritant poisoning, alleged to be due to the eating of penny ice creams of which he had partaken three days before. There had been no analysis of the contents of the stomach or intestine, but from the fact that his symptoms commenced soon after he had partaken of ice-cream, or, as it is called in the district, "lemon-jack," and that others who had also eaten of it suffered from similar symptoms, it is fair to presume that the ice-cream was the cause of his death. The verdict returned by the jury was "Death from English cholera," brought on by eating some deleterious matter. In the account of the inquest it is mentioned that there were several persons present whose children were suffering from acute illness after eating ice-cream. This is certainly a case for the investigation of the Public Prosecutor. We know that there has been a large number (twenty to thirty) of patients treated at St. Thomas's Hospital during the last fortnight, all of whom obtained their ices from a particular stall in Lambeth, nearly all of whom presented evidences of irritant poisoning, and at least three were so ill that it was necessary to admit them. Surely this is a case in which the inquest ought to have been further adjourned for the analysis of the contents of the stomach (though at that distance of time the poison would have been probably eliminated), and the examination of others who had also suffered. In THE LANCET for last year, vol. i., p. 1094, we drew attention to a similar outbreak in the same neighbourhood, and due to the same cause, and we repeated the suggestion which we first made as the result of THE LANCET Sanitary Commission in 1879 (see vol. ii., p. 590): that there should be supervision by the local sanitary authorities of the vendors of the creams, and that from time to time chemical examination should be made of samples of what prove occasionally to be very deleterious compounds. We have no analysis of the vomited matters or of the ices, but from the similarity of the symptoms with those exhibited by the patients last year, it is probable that the poison was carbolic acid, which was found in sufficient quantity in more than one case to fully account for the symptoms. The way in which this poison could have been introduced was explained by the fact that it is used in the earlier stages of the manufacture of a preservative material employed by the men to prevent decomposition of the ingredients of the various ices. Either the chemical processes had not been carried out to their full extent, and the solution used contained much free acid, or the acid itself had been employed in mistake. Some weeks ago two children died at Worthing after only a few hours of severe vomiting and purging. A post-mortem examination revealed no sufficient cause of death, and the medical men, it is said, were baffled in trying to assign a name to the disease. No doubt these were cases similar to the others, but even more comparable to a rapid choleraic attack, in which a fatal collapse has forestalled the earliest signs of enteric congestion.

THE DANUBE AND ENTERIC FEVER.

ENTERIC FEVER has recently attacked 183 persons belonging to the garrison of Klosterneuberg, above Vienna, no less than eight officers having been amongst the number. The cause of this alarming state of things appears to be that the sewage of the town, which used to be conveyed direct to the Danube, has of late, in consequence of the new regulations having for their object the purification of the river, been discharged into a stagnant arm of the Danube upon which the town stands; this arm has thus been converted into a sort of open cesspool. The hospital authorities consider the drinking-water is affected, and so they order from 600 to 800 bottles of soda-water for the patients daily. The garrison is being supplied with drinking-water in casks from wells at a distance. The men are, however, to be immediately ordered away to less pestilential localities.

PREHISTORIC DENTISTRY.

DR. MARTER, of Rome, has for some time past been devoting considerable time to examining the skulls in the various museums in Italy, and in Etruscan and Roman tombs; and he has given an account of his investigations in the *Independent Practitioner*. In the ruins of one of the Etruscan tombs, about the date 500 B.C., he found a partial denture. It was an arrangement for holding in position three upper artificial teeth by banding them to the adjoining natural teeth. These teeth were carved out of some large animal's tooth. Another denture found in an old Roman tomb consists of two natural teeth fastened by means of soft gold bands to the contiguous teeth. The most recently opened and oldest Etruscan tomb yet discovered in Italy was lately excavated at Capadimonti; this tomb belongs to the sixth century B.C., and amongst several articles of jewellery a denture, very similar to those above described, was found. Dr. Marter

was unable to discover any stopped teeth, although many cases of caries and other dental diseases presented themselves. It is certain that dentistry must have been extensively practised in the early history of the world, and that gold must have been used largely; otherwise the early Greek or Roman legislators would not have mentioned the matter in the celebrated laws of the twelve tables. Law 5th, de Jure Sacrorum, is as follows:—"Quoi auro dentes vincti sicut in cum ollo sepelire, se frande esto."

POST-GRADUATE COURSES IN SCOTLAND.

THE suggestion has frequently been made that, following the example of our American cousins, the institution of a post-graduate course in Great Britain would be both acceptable and of great utility. It has been left to Scotland to take the first steps towards giving effect to the suggestion; and a conference of representatives of all the medical institutions in Edinburgh was recently held to consider the subject. The result of this meeting was that most of those present expressed their willingness to join in and to further such a scheme, provided that there really appeared to be a general desire on the part of practitioners of medicine that such a course should be inaugurated. Further, it was remitted to a small committee, consisting of the Presidents of the Colleges of Physicians and Surgeons, the Dean of the Faculty of Medicine in the University, with Professor Chiene and Dr. Muirhead as secretaries, to endeavour to ascertain the views of practitioners on the subject, and to make arrangements for a tentative course this autumn, to be held during the last week of September and the first fortnight of October. At Glasgow, too, on the 30th ult., a meeting was held to discuss the question; and, after full consideration of it in all its bearings, it was resolved to leave the matter to individual teachers for the present year; but a committee was appointed to inquire fully into the proposal, to communicate with the local hospital authorities, and to report the result of their investigations to a subsequent meeting. Gentlemen who feel disposed to join the Edinburgh course are requested to communicate with either of the secretaries before the end of the present month in order that definite arrangements may be made. We shall watch with interest this new departure on the part of our Scottish *confrères*.

PRECAUTIONS AGAINST SUNSTROKE.

THE more than genial warmth of the past fortnight has happily been unattended by that train of accidents from sunstroke with which we have been in other seasons but too familiar. We must not, however, on that account conclude that measures of prevention are not yet necessary. A temperature of 80° or rather more in the shade is no contemptible measure of the solar power, and will more than justify such measures. The full meaning of sunstroke is not included in that term. Heatstroke or insolation is a better word, and implies a further peril besides the downward glare of an unclouded sun. The concentrated heat of a close workroom, as well as the exposure incurred by some careless labourers in the open field, may lead to most serious consequences. The exhaustion of work also, particularly if clothing is heavy, is a predisposing condition which should not be lost sight of. Ventilation, regular nutrition, light clothing, and as far as possible remission of the pressure of work, are strongly indicated by the weather conditions under which we are now living, and we therefore venture to impress their importance alike on employers and employed. Beer and other stimulants are hurtful rather than helpful, and the substitution of non-intoxicant cooling drinks for those beverages is a truly scientific and sanitary advance in public taste. Protection of the head is a subject which is now fairly well understood. It should not be forgotten that the neck as well as the cranium requires to be covered. Postmen seem to have some latitude allowed them as to summer head-gear. Soldiers have the white helmet. The police alone are left out of consideration. Will not Sir Charles Warren, who has felt the tropical sun, consider the need of the force now under his command, and advise, if not a lighter form of helmet, the addition of a scarf-puggaree to that now worn?

TRAUMATIC TETANUS TREATED BY REST.

DR. DE RENZI states, in the *Rivista Clinica*, that by treating patients with traumatic tetanus by means of perfect rest he has been able to restore four out of five to health; whereas when treated in other ways these patients usually die in two or three days. He places the case in a special room where absolute silence reigns. Even in the passages leading to it and in the neighbouring wards care is taken to lay down carpets so that no sound shall penetrate the tetanus ward. The door of the latter is of course well oiled, so as to open and shut noiselessly, and the patient's ears are stuffed with cotton-wool, he himself being strictly enjoined not to make the slightest noise. He must, of course, be fed. This has generally been considered impossible, the teeth being clenched and the spasmodic contraction being increased by attempts to masticate. The obstacle may, however, be easily overcome by parting the jaws and introducing liquid food through a curved sound; swallowing is accomplished without difficulty. This method of treating traumatic tetanus has been tried with success by several Italian practitioners—Drs. Pisani, Maragliano, Ria, &c. The only disadvantage is that the affection is sometimes prolonged for two months. It seems to increase in duration as it diminishes in force.

THE NEW MEDICAL ACT AND MEDICAL REGISTRATION.

WE are requested by the Registrar of the General Medical Council to say that, in view of the approaching election of direct representatives to the Council, he is desirous of bringing before the notice of the profession the great importance of due medical registration. According to the Medical Act, 1886, voting-papers will only be sent to those practitioners whose names are on the Medical Register, and they will be forwarded only to the registered addresses. Neglect, therefore, in at once supplying the Registrar with a correct address will probably involve the loss of the practitioner's vote.

"THE RELATION OF INSANITY TO SIN."

IT would have been more accurate to specify crime instead of speaking vaguely of sin. The *Saturday Review*, in an article on this topic, restates and professes to find approximate satisfaction in the familiar legal questions about insanity: "Did he know that what he was doing was wrong? If he did, could he help doing it?" We are unfortunately compelled by the facts of the case to join issue, and contend that a man may know he is doing wrong, and do it without obligation or impulse of any sort, and yet be insane. There is unquestionably such a thing as "moral insanity"—that is, insanity of the conscience of morality; and this particular form of mental disease—for such it is—cannot unhappily be very readily or certainly distinguished from that depravity of the moral sense which characterises alike low developments, and what Herbert Spencer has designated, and Hughlings-Jackson has demonstrated in pathology, as "dissolution." There will be no substantial progress in the study of mental disease until this branch of science is rescued from the toils of the lawyers.

The judges, by their formulation of imperfect views of facts in medicine—and therefore beyond the province of non-medical observers, however able and acute—have done grievous violence to truth and principle, and they have placed a great stumbling-block in the way of the doctors. For the present we must stand on the defensive, and may in all truthfulness be described as lost in amazement at the wondrous and inexplicable folly of those who, while attempting to recognise a disease and to discriminate between it and health, should set themselves against the study of the only methods by which diagnosis, in a medical sense, can be safely or successfully performed.

HOT WEATHER AND STREET HYGIENE.

THE summer having set in with more than its accustomed severity—an energy probably too hot to last,—attention is naturally directed to the condition of our streets and general surroundings, as regarded from a sanitary point of view. Mismanagement is to be expected, and must be endured. In this free country it is the privilege of an enlightened community to hand over its affairs of state and locality severally to the guardianship of authorities, which are purposely composed of amateurs. It is the genius of our English method of rule to be governed by persons who are in no sense professional. We glory in the fact, that, in the main, justice, finance, and politics are administered by men who are not experts. Our First Lord of the Admiralty must on no account be a sailor. Our Secretary of State for War must not be a military man. We prefer a Chancellor of the Exchequer who has not been engaged in the management of any large financial concern. Our bishops are selected by laymen, and it would be considered a disqualification for the chairman of a sanitary board to have any practical trade knowledge of the subjects which the authority is charged to administer. On the whole, doubtless the system which prevails works well. We are spared the nefarious policy of self-seeking, but there are disadvantages arising out of, or accruing to, this recourse to ignorance, as a way of avoiding interested motives and policy, which ought not to be disregarded or held of no account. It is the fashion of the day to impute carelessness to those who wrongly administer public and local affairs. This may be a charitable view of the facts, but it is very far from being an accurate or sound one. We do not think those who hold office in our midst are at all commonly neglectful of their duty. It is much more to the point that they are both fussy and ignorant. They wish to do well, but their want of acquaintance with the subjects on which they are required to pass a judgment misleads them, and leaves them at the mercy of the avowedly interested agents who are selected to work under them. Half a dozen years of government by experts would do this long-suffering country a world of good, though some evils might be inseparable from the good. It is not worth while to particularise the instances of mismanagement in the affairs of health which place the population at a disadvantage. Unemptied dustbins reeking with pestilential filth, because contractors underpay their men and vestries lack the knowledge necessary to make them masters of the situation and able to compel their contractors to discharge their duties; over-watered asphalte and wood pavements, and unwatered macadamised or stone-pitched streets; huge ponds cleaned at the worst possible time, and the neighbourhood poisoned with the putrid mud laid broadcast in the sun; carbolised water left about for children to drink, and the like—are incidents of the administration by unskilled hands on which we especially pride ourselves. If persons who really understood the business in which they were engaged could be placed in authority, these *gaucheries* would cease; but any such selection would have the drawback of introducing the peril that these skilled authorities might take advantage of their position, and turn it to their own benefit, so that we must put up with the dangers to health and the manifold annoyances to which we are subjected.

VESTRIES AND THE REMOVAL OF DUST.

THE example recently set by a resident in Marylebone who failed to procure the removal of house-dust by the parochial authorities, has been followed by a resident in St. George's, Hanover-square, who applied last week to Mr. D'Eyncourt to obtain his assistance to put pressure on the negligent officials. The complainant pathetically stated that he had made application to the vestry without avail, that he had no right to clear the dustbin himself, and that if he did so he was liable to a penalty of £5. The dustmen's aid had been sought; they had been given money, and a subscription had been sent to their beanfeast; what more could a ratepayer do? Mr. D'Eyncourt recommended that the vestry be summoned after seven days' notice had been given them, but he naturally objected to allow the constable to be used as a means of communication to the vestry. If magistrates were to do so, the metropolitan police would soon have to undertake the duty of dust inspectors. The encouragement magistrates are giving to householders is certain sooner or later to bear fruit. Vestries are not, as a rule, very susceptible to public opinion, but a conviction before the magistrate will help, more perhaps than anything else, towards the modification of the system which now exposes the health of the ratepayers to injury.

"MUMMIFYING."

THIS is the not particularly attractive term applied to a process which is alleged to render the animal organism so insensitive as to be almost unaffected by toxic influences, and so stable, or inert, as regards the metabolism of its constituent elements as to need very little sustenance from without. A man named Succi, who lives at Forli in the Romagna, is said to have discovered a "liquor extracted from various herbs" which has this marvellous effect on the bodies of persons taking it, that, as a result of its use, they can almost wholly abstain from food for a lengthened period, and can resist the influence of certain poisons. It cannot, we think, be doubted that ways of reducing the interchange of elements in the organism to an extremely low grade and of collaterally minimising the absorptive powers of the body do exist, and have been known to certain classes, and perhaps small communities of men, from very early times. This being understood we shall regard with tentative interest the investigation said to be in progress with regard to the process and powers of Succi by Professor Peruzzi of Bologna.

DISINFECTION OF RAILWAY CATTLE-TRUCKS.

DR. REDARD, Surgeon-in-Chief to the French Railways has lately presented a detailed report on the disinfection of cattle-trucks to the Government department charged with the railway administration throughout France. After reviewing the cleansing methods adopted in different countries, and recording experiments with chemical antiseptics and disinfectants, Dr. Redard arrives at the following conclusions: Chemical disinfectants are bad microbicides, requiring large quantities and prolonged contact. Spores and germ-corpuscles resist almost all chemical disinfectants. Some substances, which are very active against spores and bacteria, are very frequently powerless against a virus, unless incorporated with it freely and long. Heat is the disinfectant *par excellence*. Numerous experiments with virus and successive inoculations proved that absolute disinfection can only be obtained with certainty with steam superheated

to + 110° C. This is not easy to obtain. The different processes hitherto in use only yield boiling water or steam below 100° C. Dr. Redard therefore proposes to pass the steam through a serpentine coil placed in the locomotive boiler. Steam from 110° to 130° C. may thus be obtained.

THE RECENT LOW DEATH-RATE.

THE recent health of the large town population of England, judged by its death-rate, has been unprecedentedly satisfactory. The mean annual death-rate during the thirteen weeks of last quarter, among the rather more than nine millions of persons estimated to be living in the twenty-eight large English towns dealt with in the Registrar-General's weekly return, did not exceed 18·6 per 1000. This rate was 2·9 below the mean rate in the corresponding periods of the ten years 1876-85, and 2·4 below the mean rate in the four most recent years 1882-85. London has been especially healthy, its death-rate having been so low as 17·2, and considerably lower than in any previous corresponding period on record. The mean rate in the twenty-seven large provincial towns was 19·8 and 2·7 above the rate in London. The death-rate in the whole of England and Wales bears a tolerably constant relation to that of its twenty-eight largest towns, and if the death-rate of the whole country during last quarter bore the same proportion to that of the twenty-eight towns, as it did in the four preceding corresponding periods, it may be estimated that the annual death-rate in England and Wales in the three months ending June last did not exceed 17·1 per 1000. This rate would be considerably lower than that recorded in any previous corresponding period since civil registration was established in 1837, and 4·5 below the mean rate in the second quarters of the forty-six years 1838-84. The constant and increasing decline in the recorded death-rate in England speaks eloquently of the reality of sanitary progress.

PHARMACOGNOSY OF NITRITES.

THE present position of nitrites in medicine was clearly set forth by Mr. Armstrong in a lecture recently given in the materia medica department of the University of Edinburgh. He believes that there are but three compounds worthy of a permanent place in therapeutics—nitrite of amyl for inhalation, nitrite of sodium and nitro-glycerine for administration by the mouth. For subcutaneous injection nitrite of sodium should be preferred. If it were not for the intense headache, not always obviated by custom, that nitro-glycerine causes, certainly it would be most convenient for gastric ingestion, since it is practically stable in all conditions of the stomach. The decomposition of nitrite of sodium by the acid secretions of the stomach may readily be prevented by administering small doses of alkaline salts—the bicarbonate or carbonate of soda.

RUSSIAN PASTEUR INSTITUTES.

THE Odessa Medical Society, having solicited permission from the Minister of the Interior to open a subscription for the Pasteur Institute in Paris, have met with a refusal, the minister considering that all Russian subscriptions should now be applied to the national Pasteur institutes, of which no less than four are being established—viz., one in St. Petersburg, under Drs. Krugelviski and Hollmann; one in Moscow, under Dr. Unkovski; one in Odessa, under Prof. Metschnikoff and Dr. Gamelei; and lastly, one in Saratoff, under Dr. Parschenski. All the above-named physicians have been to Paris and learned the method from Pasteur himself, and a rabbit which has been inoculated with the virus of rabies has been brought back to Russia to serve as a starting-point.

HEALTH ASSURANCE.

THE idea of a fixed payment for medical services is a popular one, and becomes more so as it is debated. To know the worst, and to have no medical bill at Christmas to pay, must be a luxury which medical men are least able to appreciate. The essence of all such schemes, if they are to be successful, must be in their fairness. While really relieving the patient and his family from an onerous liability, they must be considerate of the medical man and secure him a fair remuneration. The fault of most existing Provident systems is that the medical remuneration is altogether inadequate. A system has been formulated by Mr. Fleming Phillips, of St. Mary Bourne, Andover, Hants, which he has stated in circulars. He has two classes—Class A and Class B. The former class is to include those whose wages do not exceed 30*s.* a week. The fees to be paid per annum per head are from 4*s.* to 8*s.*, extras excepted—viz., midwifery, vaccination certificates, surgical operation, fractures, &c.; medicines included or not, according to agreement. Class B is intended for those of higher means. The fees range from 10*s.* to 40*s.* or (rarely) 60*s.* per annum for each individual. A reduction is made in the rates for more than four persons of one family residing together. Specimen circulars, with explanatory statement, are to be had for a small sum on application to Mr. Phillips. In Class B the variation of rate is according to health, habits, means, &c., at the time of entrance. Extras as above are excepted; distance, too, is to be considered. In the circular sent to patients it is stated that the system does not involve pecuniary gain to the practitioner, and its acceptance is quite optional. Care would have to be taken not to address the circulars to the patients of other men. The fees given seem a fair basis for agreement in the respective classes of cases, and the scheme seems worthy of consideration.

PHOTOGRAPHY AND PATHOLOGY.

WE have before us photographs by Dr. Heneage Gibbes of striped muscle from the water-beetle, of goblet cells from the stomach of the newt, of Niesen's bacillus from a high altitude, of the comma bacillus, of cirrhosis of the liver, and of the cornea stained with gold. It would be difficult to speak too highly of these photographs. The definition of the bacilli and of the goblet cells is very perfect, and that of the striæ of the muscle of the water-beetle exquisite. The coarse photographic representation of morbid structures is assisted by a little colouring, and is most effective. Three such plates are before us, one representing cancer of the lung in a most vivid and beautiful way, the others, pericarditis and mitral disease respectively. It looks as if from this branch of art we should have much help in the future.

A MEDICAL ASSOCIATION FOR NEW ZEALAND.

IN response to a circular letter addressed to the various medical societies in Auckland, Wellington, Canterbury, and Otago, a meeting was recently held at the Dunedin Hospital, for the purpose of forming a general Medical Association for New Zealand. Several delegates having expressed their views, it was unanimously resolved that an Association be formed, having for its object the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession. At an adjourned meeting of the delegates, resolutions were passed calling the attention of the Government to the gradual and persistent increase of puerperal fever in various parts of the colony, and the necessity for instituting some form of registration for midwives, and protesting against the action of the Legislature in taking away the office of coroner from medical men in active practice. The Association has a wide

field for its labours, and one of the chief ends to which its efforts should be directed is a reform of the law relating to the registration of medical practitioners. This, we may confidently assume, will occupy to a large extent the deliberations of the Council, deliberations which we trust may result in success.

DR. WILHELM FROEBELIUS.

THE death is announced, in the Russian papers, of Dr. Wilhelm Froebelius, formerly a great ophthalmic surgeon in St. Petersburg. When ophthalmoscopy was in its infancy Dr. Froebelius wrote largely on the subject, and he was the first to perform iridectomy for glaucoma in St. Petersburg in 1857. He was appointed inspecting officer to the foundling institutions in 1864, and gathered under him a number of young subordinates of great ability and scientific attainments, who have rendered the greatest service to the important establishments committed to their charge; he obtained the appointment of a prosector, the first of these officers in the country. He also established, as early as 1868, an institution in St. Petersburg for calf lymph vaccination.

FALLACIOUS SURGICAL STATISTICS.

La Gazzetta degli Ospitali (June 30th) concludes a series of articles on eight years' work in the surgical clinique of Pavia (1877-85), with a summary showing 58 deaths in 1098 operations—a mean mortality of 5·28 per cent. How little importance can be attached to such a general average may be deduced from these facts: 21 cystotomies were performed without a death; so with 41 amputations of the limbs, of which 18 were of the leg and 8 of the thigh. But 11 of 39 patients succumbed after extirpation of goitre, and 17 of 34 after the following gynæcological operations: extirpation of the uterus by laparotomy, 2 cases, 2 deaths; extirpation of the uterus per vaginam, 10 cases, 4 deaths; 3 laparotomies for solid uterine tumours, with 3 deaths; 19 ovariotomies, with 8 deaths.

FOREIGN PROFESSORSHIPS.

DR. F. FALK has been appointed Extraordinary Professor of State Medicine in Berlin. Dr. C. von Rzehaczek is retiring from the Professorship of Surgery in Graz. Prof. Späth of Vienna having retired, Dr. Breisky, the well-known gynæcologist of Prague, has been appointed to succeed him. Dr. Breisky's claims were so universally recognised that no other candidate ventured to appear in the field. He was Professor of Gynæcology in Berne from 1867 to 1874, when he received a call to his present post in Prague. Dr. Gustav Braun, one of the Professors of Midwifery in Vienna, has been given the title of Hofrath. Dr. Kaulisch, Professor of Internal Medicine in the German Faculty of Prague, has died at Giesshübl, at the age of fifty-six.

BLINDNESS DUE TO DECAYED TEETH.

DR. WIDMARK, a Swedish surgeon, having as a patient a young girl in whom he was unable to detect the slightest pathological changes in the right eye, but who was yet completely blind on that side, observing considerable defects in the teeth, sent her to M. Skogsborg, a dental surgeon, who found that all the upper and lower molars were completely decayed, and that in many of them the roots were inflamed. He extracted the remains of the molars on the right side and in four days' time the sight of the right eye began to return, and on the eleventh day after the extraction of the teeth it had become quite normal. The diseased fangs on the other side were subsequently removed, lest they should cause a return of the ophthalmic affection.

ELECTION DIFFICULTIES.

THE difficulties which beset the practice of indicating by means of voting-papers the preference of an elector for a particular candidate for a vacant office are seemingly too much, not only for poor Hodge, but for persons so superior to him in position and education as Masters in Arts, Laws, and Science. Or is a contempt for trifling details to be regarded as the explanation of the remarkable fact, mentioned in our report last week of the meeting of Convocation of the University of London on Tuesday, that, in recording their choice of a candidate for the Senate, no fewer than 114 of the members' voting-papers were rendered invalid by informality?

AMERICAN DENTAL LEGISLATION.

THE following Bill has been introduced in the New York Legislature:—"Sec. 1: A dentist who shall administer chloroform or ether to any person, unless said dentist shall be a regularly graduated physician from some legally incorporated school of medicine and surgery, is guilty of a misdemeanor. Sec. 2: This Act shall take effect on and after September 1st, 1886."

THE DIRECT REPRESENTATION OF THE PROFESSION.

SEVERAL names have been mentioned as those of practitioners willing to act as Direct Representatives of the Profession in the Medical Council in Ireland, and also in England. So far we have not heard of Scotland. In the absence of formal nominations, and considering the shortness of the time that has elapsed since the passing of the Act, we think it premature to publish announcements of candidatures.

POISONOUS HONEY.

Il Morgagni reports that at the last meeting of the Agricultural Society of Dresden, M. Bley made a communication on the poisoned honey frequently imported from Trebizond. Stramonium grows there spontaneously, and, being taken up by the bees, poisons the honey, which is afterwards exported. Resulting cases of disease—some with fatal issue—have been officially certified. In American honey, also, some poisonous principles have been found, gelseminum especially.

THE Jaffa Suliman Dispensary, instituted and sustained by the Medical Women for India Fund, appears to be in full work. During 1885 no less than 27,429 patients attended and received medical relief. But the resources were inadequate to the demands made upon the charity, and accordingly a small temporary hospital at Khetwady was opened in April last year, and with the aid of a Government subsidy was got into working order. If Mr. Thornton's statement at the annual meeting of the National Indian Association be anywhere near the truth—viz., that of the 1,500,000 patients who received medical aid at the different hospitals and dispensaries of the Punjab in 1884 only one-fifth were female,—the justification for the provision of such institutions as the Jaffa Suliman Dispensary and the Khetwady Hospital must be regarded as complete.

AT the forthcoming meeting of the British Association Lord Rayleigh will open a discussion on the Physical and Physiological Theories respecting Colour Vision, and Dr. Michael Foster will probably be one of the speakers.

DR. IRELAND'S book, "The Blot upon the Brain," is, we understand, to be translated into German. The French translation is reported to be almost finished.

THE PRESENT ASPECT OF THE CHOLERA QUESTION.

BY PROF. DR. MAX VON PETTENKOFER,
OF MUNICH.

Abstract supplied, by special permission of the Author, by
HENRY KOPLIK,
OF NEW YORK.

(Concluded from page 30.)

HIRSCH, in his work on Historico-Geographic Pathology, has collected a number of facts concerning the Indian epidemics which speak as much in favour of the influence of human intercourse as they do for that of *time* and *locality*. The epidemiological facts connected with the course of cholera through long intervals of time and over wide tracts of land show that the spread of the specific cause of cholera through Europe is clearly connected with human intercourse, for in no other way could we explain how the disease has wandered in different directions from India step by step, and why so great a time was included in this spread of the disease. Yet human intercourse does not account for everything in this connexion; time and locality also play an important *rôle* in this question. The author lays especial stress on the two latter conditions, and endeavours to explain through them the diversity of epidemics in time and place of occurrence. The Contagionists, in rejecting the influence of time and locality, are as one-sided as the Autochthonists, who reject entirely the facts speaking for the influence of human intercourse.

1. *Infection of the healthy by the sick.*—Contrary to what is found to be true in the case of entogenic infectious diseases (small-pox, typhus, and scarlet fever), physicians in constant attendance on cholera patients are not attacked by the disease more frequently than others who are not. This same phenomenon has been observed among the nursing staff. If cholera were contagious in an entogenic sense, these persons should show a greater mortality than others. The researches of Günther, Bouchardt, Kopp, and Ricord support the above fact. Prof. Pettenkofer has found that in the epidemic in Munich the nurses also were as little subject to the disease as the physicians, though they came in much closer contact with the patients. The nurses, or other persons who are in the vicinity of the patients, become sick, not from an entogenic infectious matter, but from an ectogenic matter, which either develops in the locality itself or is brought by the patient on his person in sufficient quantity from the cholera district. That intercourse with the patient cannot be regarded as a source of infection shows itself most plainly in India among the nursing *personnel*. The explanation offered in the Berlin Conference of the fact that the nurses had perhaps acquired a certain immunity and protection against the disease from their being natives is inadmissible, inasmuch as natives outside the hospitals not in contact with patients fell victims to the disease. If the nurses became the victims of the disease (which occasionally happened), its spread among them was checked, not by disinfection, but by *changing the locality* of the hospital. Virchow (as contagionist) cited a case at the Berlin Congress which showed that a patient suffering from cholera infected also his three nurses. These nurses, however, might have been infected from ectogenic matter adhering to the body of the patient; or, again, the above facts do not exclude also the probability that the nurses may have been subjected to the same influences to which their patient was, and thus have contracted the disease. The vast number of facts given us by the history of epidemics in Europe and India (Cunningham) cannot be put aside by exceptional picked cases. If in most cases the physicians and nurses are not attacked by the disease, it must be because the cholera patient produces nothing in itself infectious (entogen), and the exceptional cases of infection can be explained by assuming that the patients in these instances have brought from the cholera district an ectogenic matter on their persons, which, developing in the new locality, spreads the disease.

2. *The excrement of the patients as the seat of infectious matter.*—If the cholera patient himself cannot in an entogenic sense produce anything to convey the disease, his excretions also certainly cannot. It is to be expected that, as the intestinal tract is the seat of the principal phenomena of the disease, the stools should be found to contain infectious matter. Professor Pettenkofer himself once believed that the stools, if not immediately the seat of infectious matter, could become so by subsequent development in waterclosets and drains. The experiments of Burdon-Sanderson and Thiersch seemed to support this view. Koch also has recently discovered that a constant element in the stools of cholera patients was a bacterium (comma bacillus). But if we go over the history of epidemics in former times, we see, by the light of present bacteriological researches, that the careful disinfection with iron sulphate and carbolic acid was powerless to carry out its professed object; the vitality of certain micro-organisms is not annulled by these agents. The vaunted control of certain epidemics by these agents must have been illusory. The limitation of the epidemics must have been due, in the light of present knowledge, to other more potent agencies not at the time understood. Moreover, in draining cholera localities the excrements of cholera patients must necessarily have passed through large tracts of country, yet no infection has been seen to take place along the direction of such drainage (India). Patients passing through towns have, though suffering from cholera, stopped at hotels and inns, and no cholera has been found to exist along their route. The author, therefore, though accepting the existence of a bacillus, x, entogenic in its nature, as the exciting cause of infection, does not admit the entogenic doctrine of Koch concerning the cholera bacillus. The ectogenic nature of the bacterium, x, is proved by its disposition to develop under favourable conditions of time and locality. Professor Pettenkofer does not accept the diblastic theory of Naegeli, which supposes that infectious diseases dependent on the circumstance of time and locality are due to the action of two micro-organisms, x and y, x being that emanating from the patient, and y being produced by the locality. The combination of the two in the human economy is the cause of the disease. By having lived in a locality containing y, a disposed subject can be infected by x, and *vice versâ*. The author is rather monoblastic in his belief, and believes that the bacterium x, of an ectogenic nature in cases of cholera, is spread by human intercourse.

3. *Hospital and barrack epidemics as a proof of the contagiousness of cholera.*—In spite of the universally observed fact that comparatively few physicians and nurses, in their attendance on the sick, contract cholera, the probability of the disease being contracted through this avenue has become more and more feared. This has led to the construction of separate hospitals for cholera patients. True it is that Griesinger's statistics show in Moscow a mortality of from 30 to 40 per cent. among the nursing staff in 1830, whereas in the city the mortality was 3 per cent. of the population. Romberg's hospital in Berlin shows in 1831 a mortality of almost 50 per cent. among the nursing staff. In the Paris Charité, in 1849, the deaths amounted to 16⅔ per cent., whereas 40 per cent. of the population died. The hospitals in Milan, Toulon, and Vienna also show an increased rate of mortality among the nurses. In Munich certain hospitals in particular localities show an increased death-rate among the nurses. In the case of the latter the author shows that these hospitals were situated in those parts of the city where cholera was also epidemic at the time. Other hospitals in Munich situated outside of these localities showed no mortality at all among the nurses, though they were in constant attendance on cholera patients. In both sets of hospitals the same variety of patients existed, also the same conditions of cleanliness and disinfection. The same order of nuns officiated as nurses in both. Porta supports the author in the above facts. If in Moscow and other cities the hospital nurses show such a rate of mortality, the cause must be sought, not in the patients, but in the *situation* of the hospital. The hospital situated in a cholera locality becomes, with all its inmates, subject to the same influences as other houses and their inmates in these localities. If the hospital is not a "cholera house," the patients will not be a menace to the nursing staff. Bryden has proved this to be the case with India. By studying the history of the spread of cholera in barracks in Munich, Professor Pettenkofer has found the same conditions to hold true as in the case of hospitals. Barracks and hospitals, moreover, situated in cholera districts showed the same course of the disease among themselves as was the case with houses outside the hospitals, but also situated in these districts.

4. *The linen of cholera patients as a source of infection.*—If we believe that the excrement of cholera patients is a source of infection, we must also believe that clothing soiled with the same is a source of infection. Professor Pettenkofer, in 1854, himself called attention to facts which would seem to strengthen the belief that soiled clothing is an entogenic source of infection. Koch, in explaining the striking immunity of Lyons from cholera, attributes this to the fact that the clothing is not washed in the city, but in booths situated on the banks of the Seine and Rhone. But in Zurich, Vienna, and other places, where similar conditions exist, no such immunity from cholera has been observed. Koch also traces the cholera epidemic in the washing village of Capronne to soiled clothing of cholera patients—refugees from Marseilles to Lyons. But at this time there were about 1000 cases of cholera in the city of Lyons; and it is possible also that the epidemic in Capronne was due, not to the stained linen in an entogenic sense, but to a something adhering to the linen which, ectogenic in its nature, was thus conveyed from Lyons to Capronne. Moreover, such carriers of germs may be other articles than linen. It is not an absolute condition that such clothes be washed by others to convey the disease. Cases exist where clothes simply handled in *localities* and at *times* favourably disposed have conveyed the disease. If sick persons coming from cholera districts have proved more infecting than healthy persons coming from the same places, it must be because the sick person has come into closer contact with the local ectogenic infectious matter. But healthy persons coming from cholera districts may also be carriers of this infectious matter. Drasche, more a clinician than an epidemiologist, cites cases where epidemics resulted from washing infected clothing, but which seem to be only hospital epidemics not connected with infected linen. The author, while admitting that clothes from cholera districts can cause "sporadic infections," denies that epidemics can result from such cause alone. In this connexion the author cannot agree with those—as Drasche and Monad—who attribute such a short period of incubation to cholera as half an hour. In 1854 this question, considered in Munich epidemiologically, was divided into two varieties of cases: (*a*) A person coming from a locality free from cholera to an infected spot was attacked within from two and a half to five days. (*b*) A person coming from a cholera district to one free from it, the next case resulting appeared within six or seven days.

5. *Cholera on ships.*—It has been proved that epidemics do not result where one or two isolated cases come from a cholera district to a locality free from the disease. We may suppose in such cases that the patients bring from the infected localities sufficient germs to communicate the disease to two or three others in the new locality, but the infectious matter (ectogen), not finding a suitable soil, does not thrive, and dies out, hence no general infection. Therefore it follows that the cases of cholera in the new locality were not infected by anything produced by the cholera patients there, but by the original infectious material brought from the cholera district. Such protected spots are naturally ships, and the author has always classed these among the localities unfavourably disposed to the development of the cholera germs. Ships in cholera districts have cholera on board, both where persons have come on board from the infected districts, and also where the patients have not been in such districts. Bryson shows that where ships have for a time been in the cholera district the disease has ceased to spread on board as soon as the ships have left these localities. Therefore when ships with cholera on board set sail for open sea the disease does not become epidemic, but remains limited to one or two cases. If such ships return to the cholera localities the disease also reappears (*Caledonia, Queen, Bellerophon*). According to Macpherson, ships sailing up the Hooghly and Ganges frequently have cholera on board when passing the cholera banks (one or more cases), but as soon as the ship reaches open sea the disease disappears. That ships are bad soil for the development of cholera is shown by the fact that only 11 per cent. of the ships leaving cholera ports have cases of the disease on board subsequently. The mortality on shipboard is only 1·22 per cent. (Robert Lawson). Cunningham and Lawson explain the occurrence of cholera on ships, not by the infection of the healthy through the sick, but by the supposition that something is brought from the land on shipboard, and here develops or comes in contact with those on board who have not been in the cholera districts. In this connexion it would be interesting to call attention to the fact that Cunningham records that from 1861 to 1869, of 129 ships sailing from Calcutta, carrying 50,604 natives to America, in only twenty of them (16 per cent.) did cholera appear, and on only two ships were there more than five cases of cholera during the voyage. In the year 1873, which was a cholera year, not merely for India but also for Europe and America, we have the following statistics. In this year about 400 ships brought 152,135 persons from cholera-infected districts and localities of Europe to New York. Only *four* of these ships had cholera on board. An interesting instance of these four is the *Westphalia* from Hamburg to New York. On her journey two persons died with cholera. On her arrival in New York only nine cases of cholera were found on board; of these eight recovered subsequently in the quarantine hospital. All the eleven cases of this ship belonged to one family. Another interesting case, for a long time unexplained, is that of the war-ship *Britannia*. The war fleets of the United Powers—England, France, Italy, Turkey—lying in the vicinity of Varna (1854) were visited by cholera. The French frigate *Ville de Paris* and the *Britannia* had a large number of cases on board. The English ship, wishing to check the spread of the disease, sailed for open sea; but the disease continued its severity, and in one night fifty cases of death were recorded. It was only after the ship had returned to Varna (where the cholera was at the time) and had transferred the troops and men to other ships that the disease seemed to become less severe, and then ceased without spreading further. The officers of the *Britannia* remained free from the disease. The immense mortality in one night was for a long time attributed to the fact that during the night the companion-ways were all closed, and, the air being very close, the disease was thought to have a favourable soil for its spread among the crew. But investigation has shown that the crew of this ship had probably most of them visited the sailor resorts in Varna, there came in contact with the infectious matter, conveyed it on board, and then became sick with cholera, as the fugitives from other cholera districts are on land. The officers of the ship, not having frequented the resorts or cholera localities, remained free from the disease. That cholera finds an unfavourable soil on shipboard can scarcely be denied. The cargo of the ship also might be a means by which infectious matter is conveyed on board. Bad ventilation, uncleanliness, soiled linen, and cholera stools are not sufficient to explain the spread of cholera on shipboard, for cholera exists on ships where, as in the *Windsor Castle*, the hygienic conditions were all that could be desired. Ballast in the form of soil and sand may be regarded as the carriers of harmful matter, but ships themselves cannot be looked on as the carriers of infection. Koch and Virchow do not agree with the above views. The former, in support of the entogenic theory, shows that cholera is more frequent on transport ships than on merchantmen. But Professor Pettenkofer explains this apparent frequency by the fact that on merchantmen we are less likely to find the disease, in itself not frequent on shipboard, inasmuch as we have here a vastly smaller number of persons than on the transport ships; hence in the latter we are more likely to meet with instances of the disease. Cholera epidemics on shipboard are the exception.

6. *Spread of cholera through human intercourse on land.*—The Autochthonists do not believe in or admit the agency of human intercourse in the spread of cholera on land. Cunningham records that in India pilgrims very often travel in different directions from cholera-infected spots, and some die on their journey. But, independently of this fact, the epidemics always take a certain route. In places lying outside the line of route the cholera patients cause no epidemics, but in the epidemic direction they appear to be infectious. In studying the map of Europe, we find that the cholera epidemics do not in the least spread in the lines of travel. If we were to make a topographical map of the cholera in Europe from 1830-85, as Rheinhard and Günther have done for Saxony, we should see that cholera only favours special localities and avoids others. Railroads have changed nothing in the direction of the spread of cholera either in India or Europe. Nor does the cholera spread any more rapidly to-day than in the days previous to the introduction of railroads. Cunningham in India and Günther and Rheinhard in Saxony have shown that cholera does not spread in the direction of the railway network. If a person comes from a cholera district to one not infected, and cases

follow his arrival in the new locality, or even when epidemics result, it does not follow that this original case is the cause. The arrival of the first case and the outbreak of cholera in the new locality may be simply accidental, or be due to germs carried into this locality at another time and until now latent. The mobilisation of troops in a cholera locality, combined with the want which they bring with them, and also the consequent concentration of masses of people, tend to raise the death-rate, but the spread of cholera is not due wholly to this cause. In 1866 countries harbouring no troops were the seat of cholera, more so in some cases than localities in which cholera-affected troops were quartered. Moreover, following the line of march of cholera-affected troops through a series of forty towns, it was found that only four of these subsequently became the seat of epidemics; in others the disease appeared sporadically, and in twenty-three not at all. It is only where the cholera germ finds a favourable soil that it develops and causes an epidemic. That intercourse has some influence in the spread of cholera is not denied by the author. It has not the great influence attributed to it by the Contagionists.

ADDRESS

DELIVERED AT

ST. MARY'S HOSPITAL,

AT THE

Presentation of Prizes, June 28th, 1886,

BY THE VERY REV. THE DEAN OF GLOUCESTER, D.D.
(DR. BUTLER.)

GENTLEMEN,—It must be the desire of any man who is honoured by the commission which I hold to day to say something which may be useful as well as acceptable to his audience. If you were listening to some member of your own great profession, you would doubtless expect some addition to your knowledge, derived from his insight and experience. You will now of course expect no such benefit. I have nothing to tell you that you do not know already. If I am able in any way to interest you, it will be because sympathy and respect can never be wholly disagreeable to those who receive them. Let me, then, at once try to find out at least one topic common to us all. My experience of life has lain chiefly with the young. I love to think of young men at the beginning of their career, while still a little "sicklied o'er" with the pallor of "hope deferred," and before they become too rudely embrowned by the sun of assured success. They are less interesting to me in what Mr. Canning calls "the brightness of meridian glory" than when for the time a cloud seems to brood on their imaginations and their hopes.

The keen interest of biographies lies not so much in tracing how men of genius find themselves gradually forming an "environment" exactly fitted to their gifts, as in noting how they develop gifts which were not originally conspicuous; how a sense of duty, or of ambition, or of sheer professional perseverance brings out powers of which they were almost unconscious. No doubt there is a pleasure in seeing genius move calmly and swiftly to its recognised goal. We like to read of the young Correggio standing before a masterpiece of Raphael and muttering to himself, with the consciousness of power, "I, too, am a painter." We like to read of Sheridan, after one of his early failures in the House of Commons, striking his head and saying, "I have got it in me, and, by Heaven! it shall come out." But I confess I find something even more stimulating in reading—first, the humorous praise given by a surgeon of St. Thomas's Hospital to Sir Astley Cooper: "Sir, it is of no consequence what instrument Mr. Cooper uses—they are all alike to him; and I verily believe he could operate as easily with an oyster-knife as the best bit of cutlery in Laundy's shop." I like to compare this fervid eulogy—not perhaps to be taken quite literally—with what Sir Astley wrote of himself and left among his private papers: "Sir Astley Cooper was a good anatomist, but never was a good operator where delicacy was required. He felt too much before he began ever to make a perfect operator." Have we here simply the unconsciousness of genius, the self-ignorance of an artist whose ideal of excellence is surpassingly high and exacting? or was this great surgeon really right in his estimate of his own natural powers; as right and as instructive as Brodie afterwards, who in his Autobiography—a twenty years' favourite of mine—has told us this strange story: "A friend of mine, a craniologist, told me that he saw I had the organ of constructiveness much developed, and that this explained how I excelled in the use of my hands, and was an excellent dissector. There was never," says Brodie, "a greater mistake. I was naturally very clumsy in the use of my hands, and it was only by taking great pains with myself that I became at all otherwise."

Gentlemen, I a little hesitate to draw the moral from this candid avowal. I hardly like to conceive of it as even possible that anyone here may say, "I am naturally clumsy in the use of my hands"; but if there be such a man I would dare to say to him, Let not his diffidence be too much for his ambition. Let him not exaggerate the sentiment of pity for those unknown sufferers whom in self-accusing moments he would call his victims. Nay, let not the very irksomeness of the pursuit have too depressing an effect on his spirits, for has not Brodie said, again, that those who succeed best in a profession are those who have embarked in it not from irresistible prepossession, but perhaps for some accidental circumstance, and persevere as a matter of duty, or because they have nothing better to do? "They often," he adds, "feel their new pursuit to be unattractive enough in the beginning; but as they go on and acquire knowledge, and find that they obtain some degree of credit, they become every day more interested in what they are about." But enough upon this head. Let me carry you away, gentlemen, however suddenly, from the reverie of early depression to the heyday of recognised fame and usefulness, and let me bring the physician before you in another aspect.

What rich opportunities does the physician enjoy for the study of his fellow-creatures! I am thinking, of course, of the confidential relations between doctors and the families of their patients. The ear of the physician is the modern confessional. Who is afraid to trust him, if he be worthy of trust? What insight he gains into family histories, into the causes which prevent men from being of one mind in a house, of the secret humiliations concealed beneath a bold front, of the patient heroisms, of the unsuspected sins and even crimes, of the daily tragedies under roofs which to the world at large seem a very temple of prosperity. The thought that I would endeavour to leave with you, my younger friends, is this: If such is to be your position hereafter, what manner of persons ought you to be now in preparing yourselves for so high a trust? The qualifications for such an office are clearly not professional alone, unless, indeed, you are bent on demanding for "professional" training a range and a latitude ideal rather than conventional; unless, just as Cicero claimed for his ideal orator every branch of learning and every intellectual accomplishment, you are prepared to claim for the ideal physician not only all that gives richness to the intellect, but all that gives grace and beauty to moral worth. For, consider how much is required by one who is to be the confidential friend and almost confessor of hundreds of families. He must have in a high degree the gift of sympathy first implanted by nature and then systematically trained. He must have, further, wide knowledge of the world, a clear and sober judgment, an acute moral sense, and an absolute rectitude of purpose. Further, he must have the gifts which attract and inspire affection. Much of the power which doctors so happily wield in families is, I cannot doubt, to be set down to the gentleness of their manners. I suppose, my friends, we are all more or less rough at some part of our lives, and it would be strange if this moral hirsuteness, often found among the young in all departments of study, were conspicuous by its total absence in the student of medicine. The Lord Chesterfield of the hospital is perhaps seldom matured before twenty-two. Unlike the poet, "fit, non nascitur." But it is rare, I think, to find other than gentleness in the adult physician and surgeon, though there have been, and may again be, Abernethys and Jephsons. Gentleness may fairly be termed a characteristic—if you like, an acquired instinct—of your profession. I read of one whom you regard as one of the chief ornaments of your profession. "His manner in ordinary society was sometimes complained of as harsh or abrupt, and he certainly was occasionally neglectful of the mere trifling courtesies of life, and sometimes careless of refinement of punctilio. ..... *But*"—and this is what I love to read of so

strong and true a man—"but in the proper and trying scene of the labours of the medical man, in the chamber of the sick, he was *gentle* as he was resolute. He never had a patient who was not anxious to become a friend, and the voice which was sometimes discordant amid the petty annoyances of daily life was music to a sick man's ear. Into the scene of suffering he never brought a harsh word or an unkind look." This, as I dare say many of you know, was the great operator, Robert Liston.

Gentlemen, there are just two further points on which I shall ask your permission to say a few words, and I am bound to admit that they have the smallest possible connexion with each other. The first is the importance of storing facts as we pass through life; the other is the way of dealing with one important class of facts—our own mistakes. The careful storing of facts is, I presume, one chief characteristic of the philosophic mind. Most of us let facts, whether facts of nature or facts of life, come and go unobserved. We have no microscope ready, and no journal. We were not prepared for them by any previous thought, and therefore they laid no finger upon us. Doubtless, in the medical profession, as in every other body of students, some able men are more distinguished for their extempore acumen, and others for their careful research. In reading the lives of eminent doctors, one notes with delight how one after another is distinguished by this truly Baconian passion—the passion for the accumulation of facts, facts which they have themselves seen with their own eyes and noted down with their own pen or pencil. I am almost ashamed to cite any of those illustrious names which must be so familiar to you, but you must allow something for the naive admiration of a novice. When the great Harvey, at the desire of Charles I., accompanied Lord Arundel on his embassy to the Emperor of Germany, we get this pleasant glimpse of him from an artist who was one of the party: "He would still be making of excursions into the wood, making observations of strange trees, plants, earths, &c., and sometimes like to be lost; so that my Lord Ambassador would be really angry with him, for there was not only danger of wild beasts, but of thieves." Then, again, we have Sydenham showing in his lively way, by his perilous gift of irony, so fatal to a man's prospects until he has turned sixty, his contempt for mere book-learning as compared with actual experiment. Jenner, again, the great and guileless Jenner, whose statue is one of the ornaments of my own cathedral at Gloucester, and whose spirit seems once more needed among us to save us from a dire apostacy—of Jenner we are told: "He was ever observant of natural phenomena; the objects of his studies generally lay scattered around him" in his room. "He had accumulated a great store of original observations." Of Dr. Bright, again, it is recorded that "he always took careful notes and often made drawings." In like manner, Dr. Chambers, "both at the hospital and in private practice, personally recorded the particulars of every case that he saw. Yet once more. Listen to the words of one who can never be listened to without respect—I mean Sir James Paget. This is how he describes what he calls "the simplicity of John Hunter's ordinary method of work": "It consisted mainly in the orderly accumulation of facts from every source, of every kind, and building them up in the simplest inductions. I know no instance so striking as in him of the living force which there is in facts when they are stored in a thoughtful mind." And yet further: "I think it would be difficult to find in all the masses of facts which he has recorded any one which was either observed or recorded erroneously."

A few concluding words on the other topic to which I have referred, and I release you, gentlemen, from this too-prolonged demand on your courteous attention. How to deal with one's mistakes is a problem on which one would have been glad of a little guidance from a Montaigne, or an Addison, or a Charles Lamb, or a Dr. John Brown. Some of us are blind to our mistakes; we do not see them or suspect them. Others are but too well aware of them, but try to conceal them and even to avoid thinking of them. Others, of a nobler order, make it part of their self-training in truthfulness both to see and to admit. Permit me to read you a sentence from Brodie's very interesting Autobiography, which, as I before said, has been with me a twenty years' favourite. He is speaking of what he owes to St. George's Hospital, where he was assistant-surgeon for fourteen years, and then surgeon for nearly eighteen years: "Some of my happiest hours," he says—and how many great surgeons and great physicians will echo his words,—"were those during which I was occupied in the wards with my pupils around me, answering their inquiries, explaining the cases to them at the bedside of the patients, informing them as to the grounds on which I formed my diagnosis, and my reasons for the treatment which I employed, and not concealing from them my own oversights and errors; and all this to kind and willing and only too partial listeners." In his lectures he was equally unsparing towards his own and others' errors. "Not concealing from them my oversights and errors"—that is the sentence which interests me. There, I venture to say, lay the chief moral value of the lecture, and doubtless much of its professional value also. The man who could be thus frank in the exposure of his own errors must have been a superior man. He had learnt much, at least, of the lifelong problem, "how to deal with our mistakes."

And now, gentlemen, in taking my leave of you I cannot but be painfully aware of the thinness of the metal which has been beaten out in your presence during the last half-hour. What I had to say to you amounts to little more than this: Be hopeful; be worthy of confidence; be gentle; be punctual; collect facts—and acknowledge your mistakes.

VETERINARY REPORT ON THE NILE EXPEDITION.

A VERY interesting report by Mr. Fleming, the principal veterinary surgeon, respecting the health of the animals employed in the recent Nile expedition, has just been issued from the War Office. The numerical returns forwarded by the veterinary surgeons unfortunately do not afford the means of compiling a clear statement of the losses of each class, and the injuries and diseases by which these were occasioned. From the report of Mr. Burt, the inspecting veterinary surgeon of the expeditionary force, we learn that the number of camels purchased was about 7050, and that at the end of March, 1885, only 3016 remained, showing a loss of 4034, or upwards of 57 per cent. At the end of December, 1884, when the desert and river columns left Korti to proceed to the relief of Khartoum, the strength of the camels was about 4400, that of the desert column being about 4050, and of the river 350. The former lost in dead, destroyed, killed, and missing 1850, and the latter 32, being respectively in the ratio of 43·6 and 9·1 per cent. In addition to these, 268 died or were destroyed at Korti, and 180 died while out grazing with natives. The loss in the expedition to Metammeh, therefore, between the 30th December and the 25th March amounted to 53 per cent. It is stated that of these numbers 160 were shot or died from wounds received in action, being in the ratio of 3·6 per cent. of the strength. The causes of the great mortality of the camels were chiefly under-feeding, over-work, insufficient supply of water, and the original faulty selection of the animals; it was due, in fact, "to starvation and over-work, and not to disease." As regards feeding, it is stated that on the march from Korti to Gakdul Wells only between three and five pounds of grain were issued. It was hoped that this might be supplemented by grazing, but this was found to be almost impossible under the circumstances. The river column was better off in regard to supplies both of green forage and water. With reference to overwork, Mr. Smith says: "There is no doubt that the strength of the camel was much over-rated and taxed. He was loaded and expected to carry much more weight than should have been the case.....The estimate of weight by the soldiers seemed at times very vague, more often 600 lb. or 700 lb. being loaded than 400 lb." The marches, also, they were required to perform were too long, ranging generally between twenty and thirty miles and occasionally exceeding that distance, while sixteen miles are considered to be a fair day's work; and it was impossible to give them an occasional rest from work. On the subject of watering the camels, Mr. Fleming states that "before the desert column started from Korti an order was issued that the camels were to be watered only every third day, with the object, it is supposed, of accustoming them to exist for long periods without water. This was not very judicious treatment, especially when it was well known that the animals would have little else than dry food on their journey." The order would appear to have been issued without consulting the

responsible head of the veterinary department on the spot. Another important factor in causing the high rate of mortality was the injudicious purchase of animals which were too young to undergo the fatigue of the work they had to perform. Mr. Fleming says: "I am informed that from 25 to 30 per cent. of the camels were scarcely more than two years old; but a camel is not able to undergo hard work until it is six or seven years old." Another cause of disease appears to have been the great variations in temperature to which the animals were exposed, without any adequate covering to protect them from the cold at night, the thermometer ranging between 39° and 92° Fahr. A recommendation for the issue of a strong blanket to each camel was not adopted, owing, it may be presumed, to the difficulties arising from deficent means of transport. The greatest cause of inefficiency was the enormous amount of sore backs, arising partly from the use of badly fitting pack-saddles, and partly from the ignorance or carelessness of the men in charge of the animals. For instance, it is stated that a convoy of Aden camels "marched from Kosseir to Assouan, a journey of sixteen days, during which the saddles were only once taken off." It is but fair to state, however, that in many instances the men were greatly over-worked, as "it sometimes happened that there were five, and often six, animals to one driver." Colonel Furse, the Director of Transport, very justly observes that "the officers and men, after a long and wearisome march, were as fatigued as the camels, and darkness allowed of nothing beyond their bestowing a very superficial attention to injured animals." We have hitherto confined our remarks to the camels, but there is also a very interesting report upon the horses of the 19th Hussars, by Colonel Barrow, the commanding officer. In the eight months from November, 1884, to July, 1885, the losses in a strength of 350 horses were 71, or 20 per cent. Of these, 20 were killed in action, 3 died from wounds, 31 from exhaustion, and 17 from other causes. In the march across the desert, the horses suffered great privations, especially want of water, of which on one occasion they were completely deprived for fifty-five hours. The animals were Arab stallions of an average height of 14 hands, and they carried an average weight of about 14 stone. The comparatively satisfactory results as regards the health of these animals were mainly due to the judicious arrangements made by Colonel Barrow, and the careful supervision which his report shows him to have exercised.

Very much of the untoward results which are recorded in this report was undoubtedly attributable to the inexcusable vacillation and delay on the part of the Government at home, by which the time allowed for the necessary preparations was so limited as to render it impossible to make them in a thoroughly efficient manner. But it was also partly due to the neglect of the military authorities to consult the experienced heads of the veterinary service as to the proper treatment of the camels, and to avail themselves of their skilled opinions in their purchase. Mr. Fleming makes a very fair complaint of the manner in which the officers of the department which he so efficiently conducts were ignored. A letter is appended to the report from Colonel Furse, who was Director of Transport to the expedition, in which he calls in question some of the complaints made by the veterinary officers; but the defence may be summed up in the statement that "they must, as can be seen by their reports, admit that many of the faults they bring to notice had their origin in the very unusual peculiarities of the undertaking." The report contains a large amount of valuable information respecting camels and their value as transport animals, which cannot fail to prove useful when troops are employed in countries where they are available, and the manner in which it has been prepared is very creditable to the officers concerned. We trust that, as suggested by Colonel Furse, a manual for use on future occasions may be drawn up from the data thus collected, so that a recurrence of some of those mischances which marred the character of the Nile expedition may be prevented.

REGISTRATION OF PLUMBERS.—At a meeting of the Plumbers' Company on the 30th ult., it was reported that the movement initiated a short time since by the master and other members of the guild for the improvement of the plumbing trade, with a view of protecting the health of the public, had been attended with much success, and that several hundreds of plumbers had already registered themselves.

THE COLONIAL AND INDIAN EXHIBITION.

[FIRST NOTICE.]

BY an almost unanimous verdict this year's Exhibition has proved the most popular and attractive of all the displays at South Kensington. It presents scenic effects which in themselves suffice to draw immense crowds. Intending emigrants, and those whose friends and relatives already live in the colonies, will naturally find much that interests them personally; while all Englishmen must feel a sense of pride, tempered by responsibility, when they contemplate this magnificent illustration of the vast resources and extent of our colonial empire. Technically, the physician, the sanitarian, the chemist, and the naturalist must see that so vast a collection of the world's products embraces many things that especially concerns him. But it must, nevertheless, be confessed that the sanitary problems involved in the development of British colonisation have not received the amount of attention they deserve. The present Exhibition differs most advantageously from its predecessors by the exclusion of the petty trading elements. On the other hand, commercial interests shown on a larger scale still hold too prominent a position. If England acquires a colony, it should not be solely for the purpose of trade. Care should be taken to show those civilising influences we are capable of introducing, and which are not associated with personal gain. If England assumes the responsibility of governing vast tracts of land, it must be for some other and nobler purpose than that of enriching individual colonists. We should like to see more clearly the improvement our presence has produced on the homes, the material existence, the education and comfort of the native tribes. How far have the resources of civilisation increased the quality and abundance of their food-supply? How far has our superior scientific knowledge contributed to save and prolong the lives of the natives whom we govern by the right of conquest? Our first responsibility is evidently towards those whom we have by force compelled to accept us as their masters. We can only justify domination by improving the lot of those we coerce, and the present Exhibition was an excellent opportunity of showing that, as a race, the English people had understood this high duty. In no respect could we do more than in matters relating to the preservation of public health. We know better than others what are the causes of epidemic and endemic diseases, and we can command the necessary engineering skill to carry out successfully sanitary works. For each colony we should have wished to see in some prominent position a statement showing the improvements effected. The rate of mortality should in all instances be given, and this is only done in some cases. Nor have we yet been able to discover figures that prove the extent of benefit derived from our rule. Surely some of the colonial authorities can state what was the proportion of preventable disease when first English authority was established and what it is now. Nor do we want to know merely the benefit derived by Europeans; but, for conscience' sake, we are more anxious to learn that the lives of the natives have been prolonged by our sanitary works.

There are, of course, some indications of this description to be found at the Exhibition, but it is necessary to hunt them out, and at best they are very incomplete. There is yet a grand work to be done in the vindication of England's honour. This would consist of mortality tables of all our colonies, to demonstrate that, on the whole, English domination has materially contributed to prolong the lives and improve the health of the native populations whose lands our soldiers have conquered, and whose resources our science and commerce have developed.

In respect to therapeutics there is more reason for satisfaction. A very large assortment of medicinal herbs from all parts of the world may be examined. Dr. G. E. Pierez, for instance, exhibits a rich collection of medicinal plants from the West India Islands. The plants are pressed and put in frames, accompanied by a full written description. The following specimen will show the system adopted:—"Colonial name: Christmas Pride. Botanical name: Convolvulus tiliifolius. Natural order: Convolvulaceæ. Uses: This plant is highly extolled by the native midwives, as possessing a powerful emmenagogue action; it is conse-

quently frequently used in tedious labours, an infusion of the root being given."

In the Imperial Court the drugs from East India occupy an ample space. There are about 2000 drugs in India, and of these no less than 1500 were described and shown at the recent Calcutta Exhibition; they have now been brought over to England, though there are scarcely more than 120 that present any real practical interest. It was only right, however, to show all that existed, and the exhibit is the richest of its sort that has ever been seen. The fact that it was prepared by Government has prevented any repetition of specimens; for merchants would have each sent very much the same thing. The purchases of these special samples were made in India by Mr. T. N. Mukharji, acting under the direction of Dr. G. Watt. But the whole of the collections for the Indian Section were gathered together by the Revenue and Agricultural Department of the Government of India, and the primary credit is therefore due to Mr. E. C. Buck, the Secretary to the Government, under whom Dr. Watt acted as chief administrative assistant. Volumes might be, and indeed have been, written on the specimens now placed within such easy access, though some of them, such as the monkshood and wolvesbane, had to be picked from the Himalayan range at an altitude of 10,000 feet. Close upon 800 samples of Peruvian bark, acclimatised in India, are a cheering example of what the Government have done to provide at a cheaper rate this essential febrifuge. The Government plantations at Darjeeling and on the Nilgiris now yield close upon a million pounds' weight of bark. This is for the most part manufactured in febrifuges. Then there are also considerable private plantations in the south of India, and the exports of Indian bark were estimated last year at £100,000.

The opium and hemp cultivations of India are, of course, fully illustrated at the Exhibition, but it is hardly necessary to insist on the obvious importance of these products. The fact that the Indian Government derives an average annual revenue of £9,000,000 from opium alone has, of course, given rise to so many discussions on the advantages and the evils of the opium trade, that it would carry us altogether beyond our province to re-open this vexed question on the present occasion. It suffices, for the moment, to say that, though sanitary questions do not occupy a sufficiently prominent position at the Exhibition, there is, nevertheless, much to be seen that cannot fail to interest the naturalist, the scientist, and the medical practitioner.

NUMERICAL TESTS OF HEALTH CONDITION.

IT is scarcely possible to over-estimate the value of trustworthy mortality statistics, or their beneficial influence upon sanitary progress. The correct construction of mortality statistics and their intelligent interpretation is therefore of the first importance. Very slight examination and study of the subject is sufficient to lead to the conclusion that the crude death-rate—that is, the simple proportion of annual deaths to population—is not a scientifically accurate exponent of the health of the population. Dr. William Farr, in whose hands this imperfect measure of true health or mortality exercised so important an influence upon health progress in England, only claimed that the annual death-rate per 1000 of a population afforded a test of comparative health condition sufficiently approximate for general practical purposes, and he frequently pointed out the limits within which such death-rates could alone be accepted as trustworthy. It is undeniably desirable on many grounds that the disturbing influences which militate against the scientific accuracy of the death-rate, calculated by what has been called the national system, should not be exaggerated. We cannot, in the interest of sanitary progress, surrender the death-rate as an approximate test of sanitary condition until the discovery of a more trustworthy measure of human mortality that may take its place.

During the past ten years the subject of vital statistics has received a continuous accession of students from the constantly increasing numbers of medical officers of health, and there has been a natural tendency upon the part of a certain proportion of those students of vital statistics, including notably Dr. Letheby, Dr. Rumsey, and Dr. Syson, to attach undue importance to the disturbing influences referred to above, and to conclude that the national death-rate system was fallacious and misleading. The subject has been discussed again and again, and it has been conclusively proved not only that the limits of disturbance do not destroy the value of death-rates as a general and approximate test of health condition, but that the principal opponents of the national system based their attacks upon an entire misconception of the inter-relations of birth-rates and death-rates. Except for the fact that this source of error is not yet quite extinct, there would apparently be no excuse for reopening the subject.

Mr. A. Wynter Blyth, in a recently issued Report upon the Sanitary Condition of Marylebone for the year 1885, which is especially valuable for its information bearing upon the influence of tenement life on mortality, deals with the subject of mortality statistics in a manner which calls for special notice. The importance of the subject in its general bearing upon sanitary progress makes it desirable to examine critically some of the statistical statements and suggestions in this report. Mr. Wynter Blyth says: "From want of knowledge of the subject, people are apt to quote mortality statistics as if they were in themselves absolute proof of the health or the reverse of a locality; whereas death-rates, unless interpreted intelligently, are very misleading." He, unfortunately, goes on to assert that "a low death-rate may be caused by a low birth-rate"; and "a high death-rate may be due to a high birth-rate." Here is Dr. Letheby's oft-refuted fallacy revived, with the substitution of *may be* for *is*. It is unquestionably true that the death-rate of a population is appreciably dependent upon its age constitution. A low death-rate may be due to abnormally favourable, and a high death-rate to abnormally unfavourable, age constitution of the population. It is, however, absolutely true that, in all actual populations, a low birth-rate implies an age constitution unfavourable to the death-rate; while a high birth-rate implies an age constitution favourable to the death-rate. If, therefore, it were justifiable to attribute to the birth-rate any influence upon the death-rate, which it is not, it might be said that a low death-rate may be due to a high birth-rate, and a high birth-rate may be due to a low death-rate. It can never be true, however, with regard to actual populations, to say, as Mr. Wynter Blyth says, that a low death-rate may be caused by a low birth-rate, and that a high death-rate may be due to a high birth-rate.

Mr. Wynter Blyth claims to suggest a new numerical test of the sanitary condition of a district. He says: "The mean duration of life, which is computed from both the birth-rate and death-rate and the rate of increase, are, all things considered, a better guide to the state of a district than any other single class of statistics." The value of some new numerical test of sanitary condition which should be more trustworthy than the death-rate, calculated by the national method, could not be well over-estimated, and all suggestions in this direction deserve careful consideration. We are told that if b be taken to represent the birth-rate of one unit of the population, d the death-rate of one unit of the population, r the rate of increase, and x the mean duration of life, then $x=\frac{\lambda b - \lambda d}{\lambda (1+r)}$. We are not told definitely enough what is meant by "rate of increase"; is it increase of the enumerated population, or merely increase by excess of births over deaths? and does it signify "*annual* rate of increase"? In the absence of this information it is useless to discuss the formula, although the bearing of the rate of increase of population upon the difference between the birth- and death-rates, with reference to the mean duration of life, is not at all clear. Further, when we come to test Mr. Blyth's application of his own formula we are faced by several difficulties. The report proposes to give the mean duration of life (calculated by the above-mentioned formula) for the sanitary district of Marylebone, and for each of its component registration subdistricts. This mean duration of life is said to vary from 37·9 in Christchurch, to 64·7 in Cavendish-square. Bearing in mind the variation of class in the populations of these two subdistricts, it may reasonably be expected that their true mean duration of life would vary widely; but seeing that the formula takes no account of the actual age distribution of the population dealt with, which is the most powerful factor in the control of the mortality, and hence of the mean duration of life, it is impossible to feel any confidence in the figures given. No account, moreover, is taken of the effect of migration, as dis-

tinct from the excess of births and deaths, and its effect upon the increase or decrease of population; and in the case of Marylebone and its registration subdistricts, although the excess of births over deaths in the ten years 1871-80 was 13,235, the enumerated population in 1881 was 4344 fewer than at the previous census in 1871. Mr. Blyth shows in his report that the birth-rate and death-rate in St. Mary subdistrict were equal, and it is well known that the population of the subdistrict is declining by migration; it would be interesting to know how Mr. Blyth uses his formula for arriving at the mean duration of life in this subdistrict.

Finally, it conclusively appears from Mr. Blyth's report, that his figures, purporting to give the relative mean duration of life in the several registration subdistricts of his sanitary district are untrustworthy, either because the formula is fallacious, or because it has been incorrectly applied. The term "mean duration of life," scientifically or technically, signifies the mean age at death of a life-table population—that is, of a theoretical population under observation from birth to death, undisturbed by migration, and in which the births are equal to the deaths. In any population in which the births exceed the deaths, or which are affected by migration, the mean age at death differs materially from what is technically known as the mean duration of life. But to return to Mr. Blyth's figures, he calculates the mean duration of life in St. Mary subdistrict as 45·0 and in St. John subdistrict as 43·3 years. Now another table shows the death-rate per 1000 living in 1885, at five groups of ages, in each of these registration subdistricts. From this table it appears that the death-rate in St. Mary subdistrict very considerably exceeds that in St. John subdistrict at each of these five age periods. It follows, therefore, inevitably, that the true mean duration of life must be much lower in St. Mary than in St. John subdistricts, instead of being higher, as it is made out to be when calculated by Mr. Blyth's formula.

The value of the "mean duration of life," if correctly calculated, as a test of health condition, is entirely beyond question; but a life table is the only correct basis for its calculation, and this involves laborious calculation. As regards Mr. Blyth's method for calculating the "mean duration of life," his formula requires further elucidation, but in the meantime the figures said to be computed by it are unquestionably fallacious.

WILLS OF MEDICAL MEN.

THE will and two codicils of Mr. Thomas Pennington, M.R.C.S., L.S.A., formerly of 59, Pembroke-place, but late of 22, Devonshire-road, Liverpool, were proved at the Liverpool District Registry on the 14th ult., by Mr. James Pegram and the Rev. John Smith, the acting executors, the value of the personal estate amounting to upwards of £121,000. The testator after making sundry bequests, including some in favour of local charities, devises all his real and bequeaths the residue of his personal estate upon trust as to the income for his wife, Mrs. Jane Pennington, his sister, Sarah Sleddon, and his three grandchildren, John Reginald Richard Pennington, Thomas Robert Pennington, and Edith Sarah Bremner, in equal shares; with remainder in favour of the children of such grandchildren.

The will of Alfred Pett, M.D., late of 57, Avenue-road, Regent's-park, who died on April 3rd last, was proved on the 28th ult. by Mr. James Hilton, one of the executors, the value of the personal estate amounting to over £28,000. The testator bequeaths his watch, chain, diamond ring, and plate to his wife, Mrs. Mercy Pett, for life, and then to his daughter, Louisa Harriet; £200, and his household furniture, books, and the rest of his effects to his wife; an annuity of £300 to his wife so long as she remains his widow, in addition to the provision made for her by their marriage settlement; an annuity of £100 to his daughter, Louisa Harriet, while unmarried; and legacies to his sisters and to his executors. The residue of his real and personal estate he leaves upon trust for his three daughters, Emilia Louisa Bond, Mary Gertrude Pryor, and Louisa Harriet Pett, in equal shares.

The will of Richard Parry, M.D., of 2, Lancaster-terrace, Regent's-park, who died on May 10th last, was proved on the 9th ult. by Mrs. Eliza Ann Parry, the widow, and Mr. Joseph Prosser Hill, the executors, the value of the personal estate amounting to upwards of £12,000. The testator gives the cash at his bankers and his household furniture and effects, except a few articles specifically bequeathed, to his wife; £500 to his daughter, Rosa Menpes; and two or three other legacies. The residue of his real and personal estate he leaves upon trust for his wife for life; then as to £2000 for his son, Thomas Palmer Parry, for life; and the ultimate residue for his three daughters, Mary Harriet Parry, Rosa Menpes, and Jessie Buckle.

The will of Peter Mageniss, M.D., of 27, Euston-road, King's-cross, who died on March 1st last, was proved on the 28th ult., by Mr. John Ortelli and the Venerable Patrick Mageniss, the executors, the value of the personal estate amounting to upwards of £10,000. The testator confirms the settlement of property made by him on his daughter, Catherine Rose, at her marriage; and gives the rest of his estate upon trust for his grandson, Vincent Peter Kennedy.

The will and codicil of Alexander Guthrie, M.D., Deputy Surgeon-General, H.M. Army, formerly of Maisondieu, near Brechin, N.B., but late of Fort Pitt House, Chatham, who died on March 3rd last, were proved on the 29th ult. by Mr. John Guthrie, the brother, Mr. Montagu St. John Maule, and Mr. George Cottrill Downing, the surviving executors, the value of the personal estate amounting to over £8000. The testator bequeaths his household furniture, plate, linen, china, and goods to his wife, Mrs. Emily Guy Menzies Guthrie. As to the residue of his property, he leaves the whole income to his wife for life, but if she marries again one-half only; and subject thereto to be equally divided among his lawful children.

The will of Richard Tuthill Massey, M.D., formerly of Park-road, Redhill, but late of 18, Powis-road, Brighton, who died on Feb. 17th last, was proved on the 22nd ult. by Mrs. Anna Massey, the widow and sole executrix, the value of the personal estate amounting to over £2000. With the exception of a legacy of £900 to his sisters, Mary Anne and Caroline, the only legatee under the will is testator's wife. His daughter Beatrice Jane is fully provided for by his marriage settlement.

The will of James Thompson, M.D., formerly of Avenue House, Leamington, but late of 1, Matheson-road, Kensington, who died on the 5th ult., was proved on the 3rd inst. by Mr. Andrew Thompson, the brother, and Mr. Edward Henry Panton, the executors, the value of the personal estate amounting to nearly £2000. The testator gives a few memorial legacies, and the other legatees under the will are his wife, Mrs. Mary Jane Thompson, and his two daughters, Millicent Phœbe and Kathleen Mary.

The will of Mr. Frederick John Alexander, Surgeon, of Margery Hall, Margery-park-road, Essex, who died on April 7th last, was proved on the 18th ult. by Mr. Horace Augustus Alexander, the brother, and Mr. Frederick Bush, the executors. The testator leaves an annuity to his mother, a legacy to his housekeeper and her husband; and the residue of his real and personal estate upon trust for the benefit of his wife, Mrs. Lucretia Sanders Alexander.

The following legacies have recently been left to hospitals and other medical institutions:—Mr. Henry Christey, formerly of Beer-lane, Tower-hill, but late of 23, St. Andrew's-square, Hastings, the gross value of whose personal estate amounts to nearly £14,000, after bequeathing legacies amounting to £350 to his brother and sisters, leaves and bequeaths all the rest of his property to the London Hospital, Whitechapel-road.—Mr. William de Hague, of the East India United Service Club, St. James's-square, and the Langham Hotel, Langham-place, £3000 each to St. George's Hospital, the Middlesex Hospital, the London Hospital, the Royal Hospital for Incurables, West-hill, Putney-heath, the Westminster Hospital, and the City of London Hospital for Diseases of the Chest, City-road.—Sir Henry Morgan Vane, of 74, Belgrave-square, £200 each (free of duty) to St. George's Hospital, Hyde-park Corner, and the General Infirmary, Northampton.

EAST LONDON NURSING SOCIETY.—Princess Christian presided on the 6th inst. over a drawing-room meeting on behalf of this Society, the object of which is to provide nurses for the sick poor, in their own homes, in the east of London. It is now at work in twenty parishes, and employs a similar number of nurses, who are under the supervision of three matrons.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Aylesbury Rural District.—Dr. Hilliard has to record a considerable freedom from mortality by reason of infectious diseases. Aston Clinton has been much benefited by Lady de Rothschild's intervention in laying the mains of the Chiltern Hills water through the village. Some cottages, however, still resort to wells liable to pollution, and the authority should see that this is no longer tolerated. Bye-laws as to buildings have been enacted, and much benefit is expected to result from them. Dr. Hilliard's report includes a careful *résumé* of vital statistics and meteorological records.

Newcastle-upon-Tyne Urban District.—Mr. Henry Armstrong's annual report practically forms a handbook on the health of the city under his sanitary supervision. So far as mortality statistics are concerned, the city has in its general death-rate retrograded; the rate for 1885 being 26·0 per 1000, and standing higher than it has done since 1875. Under the Local Improvement Act 1727 cases of infectious diseases were reported, 1227 being scarlet fever, 253 enteric fever, 93 diphtheria, and 70 small-pox; there were also 9 cases of typhus. Of the latter, it is said that 8 cases occurred in separate houses, and one in an institution. The failure of the disease to spread must largely be attributed to the resort to isolation in hospital. In all, 128 patients were removed to either the fever or the small-pox hospitals, the accommodation in which is at present much restricted. In 1883 a systematic house-to-house inspection of the borough was commenced, a special staff of inspectors being engaged; and the results include a return for every inhabited dwelling in the city, except two, admission to which was refused. The number of defects which came under notice has been great, and a large amount of valuable work has been the result, all this being set out in summary in Mr. Armstrong's report. In addition to the general report, a special one is submitted on the water-supply of the city. It forms an exhaustive summary of all the conditions under which a water-supply should properly be conveyed to a city and its inhabitants, and of the evils and drawbacks to be avoided if a wholesome supply is to be utilised to the utmost advantage.

Batley Urban District.—The general death-rate for 1885 was 19·4 per 1000, and that for zymotic diseases was as high as 3·69 per 1000, the principal causes being whooping-cough, diphtheria, scarlet-fever, and measles. Action was taken to stay the spread of infection, but though the matter has for years past been brought under the notice of the Corporation, Batley still has no means for the isolation of first attacks of infectious diseases. A summary of dangers to health includes references to houses without proper drainage, dwellings fouled by contiguity to middens and privies, need for proper drain disconnexion, inadequate privy accommodation, and houses otherwise unfit for habitation. Reference is made in Dr. Swann's report to Dr. Thorne Thorne's inspection of Batley in 1878; and we fear that, in many respects, the town remains much what it was at that date.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5609 births and 3064 deaths were registered during the week ending July 3rd. The annual death-rate in these towns, which had been equal to 16·8 and 17·0 per 1000 in the preceding two weeks, further rose last week to 17·6. During the thirteen weeks ending on Saturday last the death-rate in these towns averaged only 18·6 per 1000, and was 2·9 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 13·3 in Salford, 14·2 in Derby, and 14·7 in Sunderland. The rates in the other towns ranged upwards to 23·3 in Halifax, 25·9 in Plymouth, 26·9 in Manchester, and 30·4 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had steadily increased in the preceding three weeks from 263 to 312, further rose last week to 333; they included 115 from measles, 86 from diarrhœa, 67 from whooping-cough, 30 from "fever" (principally enteric), 20 from scarlet fever, 15 from diphtheria, and not one from small-pox. No death from any of these zymotic diseases was recorded last week in Sunderland, Wolverhampton, or Derby; whereas they caused the highest death-rates in Bolton, Portsmouth, and Preston. The greatest mortality from measles occurred in Oldham, Portsmouth, Bolton, and Preston; from diarrhœa in Plymouth and Blackburn; from whooping-cough in Manchester and Salford; and from "fever" in Newcastle-upon-Tyne, Portsmouth, and Birkenhead. The 15 deaths from diphtheria in the twenty-eight towns included 9 in London, 3 in Liverpool, and 2 in Nottingham. Small-pox caused no death either in London and its outer ring or in any of the twenty-seven large provincial towns. The number of small-pox patients in the metropolitan hospitals situated in and around London, which had been 31, 23, and 17 on the preceding three Saturdays, had further declined to 14 at the end of last week; 2 cases were admitted to these hospitals during the week, against 2 and 4 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 184 and 194 in the preceding two weeks, further rose last week to 197, but were 23 below the corrected average. The causes of 68, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Salford, Nottingham, Brighton, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Hull, Oldham, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 21·7 and 20·2 per 1000 in the preceding two weeks, rose again to 20·8 in the week ending July 3rd; this rate exceeded by 3·2 the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 11·7 in Aberdeen and 13·1 in Dundee, to 25·9 in Leith and 31·2 in Paisley. The 514 deaths in the eight towns showed an increase of 16 upon the number in the previous week, and included 16 which were referred to diarrhœa, 15 to measles, 10 to scarlet fever, 10 to whooping-cough, 4 to "fever," (typhus, enteric, or simple), 4 to diphtheria, and not one to small-pox; in all, 59 deaths resulted from these principal zymotic diseases, against 49, 57, and 65 in the preceding three weeks. These 59 deaths were equal to an annual rate of 2·0 per 1000, which exceeded by 0·1 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been 10, 17, and 20 in the previous three weeks, declined again last week to 15, of which 9 occurred in Leith and 5 in Edinburgh. The 16 deaths attributed to diarrhœal diseases showed a further increase upon the numbers in recent weeks, but agreed with the number in the corresponding week of last year, and included 7 in Glasgow and 4 in Edinburgh. The 10 deaths from whooping-cough showed a marked decline from recent weekly numbers; 8 were recorded in Glasgow. The 10 fatal cases of scarlet fever, on the other hand, showed an increase, and included 9 in Glasgow. Two of the 4 deaths referred to "fever" and to diphtheria were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 93 and 86 in the previous two weeks, further declined last week to 77, but exceeded by 8 the number in the corresponding week of last year. The causes of 72, or more than 14 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 20·8, 22·9, and 24·7 per 1000 in the preceding three weeks, declined again to 22·9 in the week ending July 3rd. During the thirteen weeks of the last quarter the death-rate in the city averaged 25·6; the mean rate during the same period did not exceed 17·2 in London and 19·7 in Edinburgh. The 155 deaths in Dublin last week showed a decline of 12 from the number in the previous week, and included 12 which were referred to the principal zymotic diseases, against 5, 7, and 10 in the previous three weeks; 4 resulted from "fever," 4 from whooping-cough, 3 from diarrhœa, 1 from scarlet fever, and not one either from small-pox, measles, or diphtheria. These 12 deaths were equal to an

annual rate of 1·8 per 1000, the rates from the same diseases being 1·8 in London and 2·3 in Edinburgh. The fatal cases each of "fever," whooping-cough, and diarrhœa showed an increase upon the numbers in the previous week, and that of scarlet fever a decline of 2. The 28 deaths from "fever" in the thirteen weeks ending last Saturday were but half the number in the first three months of the year. Six inquest cases and 4 deaths from violence were registered; and 55, or more than a third, of the deaths were recorded in public institutions. The deaths of infants showed an increase upon recent weekly numbers, whereas those of elderly persons had declined. The causes of 21, or 13 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: Surgeon-Major F. Alfred Turton has retired upon temporary half pay.

ADMIRALTY. — The following appointments have been made:—Surgeon Henry W. D. Walsh, to the Bermuda Hospital; Surgeon Michael J. M'Carthy, to Hong-Kong Hospital; Surgeon Samuel Keays, to Plymouth Hospital; Surgeon T. Dunlop, to the *Icarus;* Surgeon G. C. Ward, to the *Alecto;* Surgeon J. Barry, to the *Banterer;* Surgeon W. G. E. Smith, to the *Flying Fish;* Surgeon Thomas M. Sibbald, to the *Duke of Wellington;* and Surgeon and Agent Charles Harrison, to Castletown, Berehaven.

INFANTRY MILITIA. — 3rd Battalion, the Connaught Rangers: Surgeon George W. Hatchell is granted the honorary rank of Surgeon-Major.

RIFLE VOLUNTEERS.—2nd Volunteer Battalion, the Duke of Cornwall's Light Infantry: Acting Surgeon John Henry Jenkins resigns his appointment; William Nettle, Gent., to be Acting Surgeon.—1st Volunteer Battalion, the Lincolnshire Regiment: Surgeon and Honorary Surgeon-Major C. B. Moody resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement.—1st Sussex: James Turton, Gent., to be Acting Surgeon.

Correspondence.

"Audi alteram partem."

THE APPROPRIATION OF PATIENTS BY CONSULTANTS.

To the Editor of THE LANCET.

SIR,—Will you allow me to bring under your notice what I call the absorbent action of consultants as exerted on patients introduced to them by general practitioners? A few weeks ago I felt specially sore on this point, as within a short period previous to that I had discovered that three patients, whom I had introduced to as many consultants, had been blandly absorbed by these gentlemen as their own exclusive property. It is fair to say that in one of these cases the consultant has since given me a full explanation of the circumstances. This was not my first experience of such treatment, but the accidental occurrence of three cases was the immediate cause of my then soreness. I frequently have heard of similar cases from my neighbours, and there can be no doubt that there is no longer that perfect safety in calling in a consultant that used to exist. This, it seems to me, is a matter much to be regretted, not only because it increases the hardships of our professional existence, but because it indicates a certain loss of tone in the moral fibre, and must, if carried on, finally land us in a death-clutch at each other's throats. No longer shall we be able to trust a brother practitioner to see a patient for us if we are ill; no more shall we find available that outside assistance on which, in cases of emergency, we have been accustomed to rely—in a word, it will be "every man for himself."

In California there is a process called "jumping a claim." Land in the gold districts is there taken up by parties of two, three, or four, and it is no uncommon thing for a small party to awake one fine morning and find a notice on their claim to the effect that a larger party has taken it. On remonstrance, it is customary for the larger party to produce their revolvers, and to remark that, their numbers being four, five, or six, as the case may be, to the original party of three, four, or five, it will be best for the rightful owners to depart. This is about our position with regard to consultants. We find our patients being assimilated by them, and in view of their moral revolvers—in other words, this titles, their position, and their prestige—we are obliged to recognise the futility of resistance, and resignedly to see our patients "jumped." Whether the struggle for existence in the upper ranks of the profession is the real cause of this behaviour, or whether it is ignorance of the ethical laws which swayed the conduct of our ancestors, the result is the same: there is a loss of tone, and the gentlemanly honour of the profession loses its lustre. Men are too ready to believe what patients say of their doctors. There is no subject on which the laity so unblushingly lie as on that of their relations with their doctors. Does a patient owe a doctor a bill and on that account for very shame hesitate to call him in, he will tell another doctor that his reason for changing is on account of some error of his original doctor. If a consultant asks a patient who comes for a second consultation without his regular adviser the reason of this absence, he is most probably told that the patient and the doctor have quarrelled, whereas the real reason is that the patient thinks to save the double fee. And so it is in many other instances, so that now I, for one, never believe what a patient tells me about doctors.

I have mentioned the "double fee." There is no doubt that this fact, that when a patient is accompanied by his own medical adviser a fee of two guineas is charged when if he went alone he would only have to pay one, goes a long way to account for the action of the patient. As has been frequently observed, this method of procedure is a little difficult to explain, for when the medical or surgical particulars of the case are ready cut and dried there cannot be so much for the consultant to do as when he has to ferret them out for himself. And, sad to tell, by this increase of charge the consultant lays himself more open to be assailed by temptation, as men will always try to get as much as they can for as little as possible. Altogether, Sir, what with absorbent consultants, prescribing chemists, and pay wards at the hospitals, the general practitioner's outlook is not cheerful. Cannot you help us? A few words from you may make the consultants more careful and more willing to observe the good old rule by which one medical man, in times now nearly gone, would absolutely refuse to see a patient to whom he had been introduced by another without the knowledge and consent of that gentleman. After all, this is only another reading of a still more ancient rule which bids us do to others as we would they should do to us.

I am, Sir, yours truly,

Holloway-road, N., July 6th, 1886. W. HENRY KESTEVEN.

THE RECENT CHOLERA SCARE AT QUEENSLAND PORTS.

To the Editor of THE LANCET.

SIR,—As some doubt seems to have been expressed in certain quarters as to the nature of the symptoms, supposed to be those of cholera, which have recently been manifested in the latter part of the outward voyage on certain Queensland Government emigration steamships, and which proved fatal to several of the emigrants on the *Dorunda*, it would be interesting to inquire whether there could be any other cause tending to modify the diagnosis, for it is well known, as Dr. F. Roberts remarks in his "Handbook of the Theory and Practice of Medicine" (3rd ed., p. 226, vol. i.), that "intense gastro-enteritis, excited by poison or some other irritant, has been mistaken for cholera." As I happened to be temporarily filling the post of surgeon to an outward-bound steamer, calling at Queensland ports, which immediately succeeded the *Dorunda* at Batavia at the time of the occurrence—viz., at the close of last year and the commencement of the present,—it may be presumed that the inquiry is not without some personal as well as public interest. The medical officer of health at one of the Queensland ports, who had acquired considerable practical acquaintance with the symptoms of cholera during a residence in Central America of some years, expressed to me very decided doubts as to the accuracy of the diagnosis, though I think I am not now justified in mentioning his name. Hearing by telegram of the fatal sickness which had occurred on the *Dorunda*,

and being warned—too late, however—not to enter the harbour of Batavia, we were not without some anxiety lest we ourselves should suffer in like manner—a fear which appeared not wholly unfounded on the occurrence of several cases of severe colic, of a nature somewhat mysterious in origin, but happily more or less readily yielding to medical treatment, some time after leaving that port.

In a previous letter in your columns (see THE LANCET, April 24th last) your readers may have noticed my mention of what appeared to afford ground for suspicion as to the cause of the symptoms which came under my notice, and which I suggested as probably due to zinc-poisoning, a view which received confirmation on referring to the researches of M. L. L'Hote in *Comptes Rendus*, in the decomposition of water by zinc in the presence of iron, and from the manifest presence of the injurious metal in a sample of the water we had been consuming, which I had reserved and submitted to chemical test after my return home; the possible cause of the epidemic having been first suggested by one of the ship's engineers, who was aware of the presence of zinc anti-corrossive plates affixed inside the boiler we had been using for condensing purposes. Since somewhat similar symptoms, but fortunately not fatal, have more recently occurred on board the Queensland Government emigration steamship *Quetta*, which you have remarked as being in all probability not of a choleraic nature, it would be interesting, from a medical aspect, to inquire whether these ships also have, in like manner, zinc anti-corrosive plates in their condensing boilers, which, supposing the invention of modern application, would excite greater suspicion if the ships in question are of more modern construction than others in the line of service. If so, we arrive at what would seem to be an interesting confirmation of a probable cause of certain symptoms which, even though fatal in several cases on board the *Dorunda*, have at least been adjudged by certain individuals to possess some difference in type and duration as compared with those usually manifest in epidemic cholera. Apart from the enfeebling character of a tropical voyage on the average British unacclimatised constitution, which might be supposed to predispose the system to epidemic and other prejudicial influences, in support of the idea suggested as to the probable cause of the symptoms, which give rise to very considerable anxiety and apprehension in Queensland, and which would seem, in case of recurrence, in danger of seriously impeding commerce, it is well to remember that the symptoms appear to have arisen shortly after leaving Batavia, or even before arriving at that port, in the case of the *Quetta*, or, as it is presumed, after the consumption of condensed water—for it is not now usual, I believe, to take in supplies of that commodity at the port of Batavia,—and, as it appeared to me, amongst a section of the ship's company consuming the water most freely, and where, perhaps, the accommodation was not quite so good, or the diet-table so liberally varied.

Without appearing to prejudice the interests of our shipbuilders, whose marvellous works we so much admire, and who would be the first to desire to remedy any palpable error in construction affecting the health of the passengers or crew, or, by raising an unfounded alarm, to interfere with the freedom of invention or of commerce, it might seem that an official inquiry might be instituted on the lines above suggested with manifest advantage, in order to prevent, if possible, the perpetuation of an injury to the health of the seagoing community, and others who may have to depend upon supplies of condensed sea-water for consumption from time to time; and should confirmation be given to a supposed assignable cause of symptoms of illness giving rise to alarm, it is manifest that the inquiry will not be futile. Should, however, there appear to be insufficient ground for an official inquiry on the subject, I should feel glad to receive any information as to the presence of zinc plates in the condensing boilers of the ships in question, or bearing on the subject generally. Whilst in pursuit of the medical investigation, any information tendered by those members of the profession who may have had the charge of the ships where the illness has occurred or of the Brisbane Quarantine Station, or who have had to do with the inspection of the ships of the line where illness has occurred, in their official capacity as port sanitary officers, communicated to your columns, will, I doubt not, be of interest to many of your readers.—I am, sir, yours faithfully,

JOHN WARD, M.D., ex-M.O.H.

Sutton Coldfield, Birmingham, June 15th, 1886.

JOHN HUNTER.

To the Editor of THE LANCET.

SIR,—I beg leave, through you, to tender warm thanks to Mr. Charles Hawkins for having just published in your columns a very remarkable letter from John Hunter to the governors of St. George's Hospital. The great surgeon's writings often leave much to be desired. He was a deep thinker and an untiring worker, but neither a wide reader nor a facile exponent of thought. On the latter point judgment must be expressed with reserve, because facts fail through the deplorable destruction of much of John Hunter's manuscript by Everard Home. That the loss was irreparable is beyond doubt, but whether the papers burnt were rough notes or finished essays it is impossible to say. The letter which you now publish was written some months after John Hunter's last communication to the Royal Society, and not many weeks before his death. It is rich in evidence of philosophic spirit, of enthusiasm for professional work, and of public disinterestedness. Mr. Hawkins tells us that the letter is one of a series in his possession, and that he *may* print the whole correspondence. By doing so I venture, through you, to assure Mr. Hawkins that he will be rendering a very great service to all students of surgical history. As the editor of Sir Benjamin Brodie's writings, and as one of the comparatively few surviving links between the epoch immediately succeeding the Hunterian and our own times, Mr. Charles Hawkins must possess a store of information which would be priceless now, and irrecoverable unless he place it on public record.

I seize this opportunity for referring to one item in Hunterian history on which information is much needed. John Hunter's wife, sister of Sir Everard Home, bore him four children, of whom two died young; the other two, Agnes and John, were said to be living in 1835, when Henry Ottley wrote the life of Hunter prefixed to Palmer's edition of his works. The Annual Register for 1793, the year of John Hunter's death, states that he left a son in his twentieth year, then at Cambridge. That son, according to information kindly supplied to me by Dr. William Hunter of Rothesay, entered the army, rose to the rank of colonel, and left a daughter, named after his sister Agnes. But I can obtain no further reliable information. Anyone able to supply it will, I am sure, be welcome to your columns.

I am, Sir, your obedient servant,

Birmingham, July 4th, 1886. SAMPSON GAMGEE.

A MISTAKE, A DEDUCTION, AND A MORAL.

To the Editor of THE LANCET.

SIR,—The general brevity of our English summer renders us very liable to forget the fact that in weather such as we are now experiencing the extreme heat of the sun's rays may, without the exercise of due care, be very powerful of harm. A brief mention of the following case will illustrate my meaning, and may not merely be of interest, but, should the weather continue, may also be beneficial in helping others to form at once a correct diagnosis, where I must confess I at first decidedly failed.

On Sunday evening, July 4th, I was called to see Alfred L——, aged four years, a well-nourished, healthy-looking child. His parents, who were very anxious about him, told me he was taken ill on Friday, July 2nd, until which day he had been in his usual health. The only history I obtained of the illness was that he was very restless on Friday evening, shivered slightly, and then became feverish, thirsty, and complained of his throat. I found him lying on his side with his face away from the window, and nearly buried in the pillow. The thermometer registered his temperature at 104° F. His skin was very hot and dry, tongue coated with a white fur, pupils dilated, breathing rapid, and alæ nasi working.

Remembering the prevalence of east and north-east winds, I thought I had to deal with a case of pneumonia or capillary bronchitis. And here comes the harm of forming an opinion before examination. The percussion note was apparently good and breathing vesicular. But I was prejudiced, and at times I thought I detected slight roughness in the breathing on one side, while I fancied the puerile breathing was almost bronchial over one back. However, the signs

were very negative, so I ordered a simple mixture of citrate of potash and spirits of ammonia, with milk diet, and left, promising to return in the morning, when I thought, were I right, the physical signs would have more fully developed. However, I am glad to say that on the same evening, a few hours later, it suddenly occurred to me that the case was one of sunstroke; and then I remembered, again, the position of the child, the dilated pupil, and the avoidance of light; I recalled also a sign of great significance that I have not mentioned before—viz., well-marked reflex muscular irritability, especially in the spinal region; and I put these with the high temperature and absence of lung signs, and was certain my sudden conviction was correct. It was more fully confirmed next day, when the child was much better, the temperature being 100°, lung sounds quite healthy, and muscular irritability much less. He continued the medicine, with a powder of rhubarb and mercury with chalk at bedtime, and also cold to the spine. To-day (Tuesday) he is still more improved and wishes to get up. I have no doubt of his speedy convalescence.

While apologising, if necessary, for the length at which I write, I would urge this deduction. We in England are even more liable to sunstroke in this short summer of ours than they who reside in the tropics. And for this reason: In the tropics the residents are continually alive to the dread effects of the blazing sun, and go about in pith helmets and spinal protectors. In England, we make no change in our dress, treating an almost tropical sun with careless indifference. I suppose this is because our climate is so uncertain. The all-powerful sun of to-day may be hidden by clouds and cooled by rain to-morrow, to shine no more in its potency for another year. However this may be, during this brief season of heat, I would urge a constant and mindful care, particularly extended to children too young to know or care for the danger themselves. And the moral is one I take to heart myself: "Avoid drawing conclusions until certain of the premisses on which they should be based."

I am Sir, your obedient servant,

FRANK STURGES, L.R.C.P., Lond.,
Late Surgeon P. & O. S. N. Co.

Beckenham, July 6th, 1886.

LIVERPOOL.

(From our own Correspondent.)

THE CONVALESCENT HOSPITAL AT WOOLTON.

THE twelfth annual meeting of the supporters of the Woolton Convalescent Hospital was held on June 26th. In this city, as elsewhere, an institution of this kind supplies a great want. Our four general hospitals are not more than sufficient for a centre containing a population of nearly 600,000. Moreover, they are not merely city but county institutions, receiving patients from a considerable distance. It follows therefore that many patients leave our hospitals in a condition which would be greatly improved by a short residence in a convalescent hospital. Woolton is a pleasant village several miles south-east of Liverpool, and the institution is most ably administered. Mr. George Cope has presented £500 for the endowment of a bed to be known as the "George and Thomas Cope bed," for the use of the working people employed in their factory.

THE LOWEST MORTALITY EVER KNOWN.

At the last meeting of the Health Committee, the chairman, Mr. J. B. Smith, remarked that the rate of mortality (18·2 per 1000) was the lowest he had ever known.

THE DEAD-HOUSE.

There would appear to be a special Providence over the wealthier classes of this city. It has never happened that the body of a "merchant prince" has been found floating in the river, been recovered by some waterman, and conveyed to the Prince's Dock Dead-house. Had such an event occurred there would probably have been a general chorus of indignation that the body of any gentleman should have been conveyed to such a miserable place as the mortuary or dead-house has always been. Some years ago it was removed from its former site to another not far off, and it was fully expected that the present structure was only a temporary one. But as years have rolled on this has turned out to be a pleasing illusion. The place as it is, especially in hot weather, is a disgrace to everyone responsible for its continuance. It is, unfortunately, another melancholy instance of what is everybody's business being nobody's business. A very small expenditure would suffice to produce a structure which would be suitable for the reception of bodies, and at the same time not prejudicial to the health of those who have to visit it, and even spend some time there. It is greatly to be hoped that this will soon be done, as otherwise it is quite impossible to say how soon a very serious scandal may arise.

HOSPITAL SATURDAY.

The amount found in the Hospital Saturday boxes exceeds £3000, which is the largest sum received since the first starting of the fund in 1871. It is expected, however, that as years pass on this amount will be considerably augmented, and there can be no reason why the working men of Liverpool should not raise as much as has been done by their fellow-workmen in Birmingham and Glasgow—viz., £5000.

TESTIMONIAL TO DR. HYLA GREVES.

Dr. Hyla Greves was presented on June 29th with a silver bowl as centre-piece and an illuminated address from a number of his medical friends. The presentation took place at a supper at the Adelphi Hotel. Mr. Mitchell Banks presided, and there were about seventy gentlemen present. Dr. Hyla Greves leaves Liverpool for Bournemouth with the heartiest good wishes for his health and prosperity of a very large number of both professional and lay friends; it may, indeed, be said that he does not leave an enemy behind. In the various appointments he has held of physician to the Infirmary for Children and the Bluecoat Hospital, he has won golden opinions, and the regret felt at losing his future services is felt by the committees of both these charities. Dr. Greves has also held office at the School of Medicine as Demonstrator of Anatomy and Medical Tutor, where he was most popular with all the students. His perfect recovery to health after a most serious illness caused the greatest satisfaction to all his numerous friends.

Liverpool, June 30th.

MANCHESTER.

(From our own Correspondent.)

OWENS COLLEGE.

FRIDAY last was the annual prize day and meeting for presentation of associates of the College. There was a large attendance, and, either owing to the General Election taking place on the same day or to some other cause, the students indulged much more than has been usual of late in giving vent to their animal spirits by the shouting and cheering of names of politicians &c., those of Sir H. Roscoe and Lord R. Churchill being apparently in greatest favour. The report of Dr. Greenwood stated that the number of students during the past session had been 1251, exclusive of those in the department for women. The lady students numbered 66. The number of associates admitted this year was 33, 17 of these being graduates of Victoria University, and 14 either of London, Oxford, or Cambridge. One-half were graduates in medicine, and the remainder in arts or science. In alluding to the resignation of Sir H. Roscoe as Professor of Chemistry, the Principal paid a well-deserved tribute to the part he had taken in bringing the College to its present position, and especially that to him was due the perfection of its chemical laboratories and teaching. An important feature of the year's work is the projected establishment in the immediate future of a hall of residence, to be called the Hulme Hall, already endowed with £1000 per annum.

ELECTION OF SIR H. ROSCOE.

The candidature of Sir Henry Roscoe for the representation of South Manchester in Parliament has again been successful. At the last election Dr. Royle opposed him, but this time Colonel Fowler was the Conservative candidate, and Sir Henry's majority was reduced to some 300 only. No medical man has this time appeared as an aspirant for parliamentary honours in either Manchester or Salford.

MR. LUND.

The heading of the poll by Mr. Lund at the late election for members of the Council of the College of Surgeons has given much satisfaction here, and shows that the time and attention he has devoted to his duties there during the past

eight years have been appreciated. Although resident two hundred miles from London, his attendance at the meetings has been most regular, and demonstrates that efficiency is no monopoly of the metropolitan members.

WORKHOUSE DIETARIES.

Apropos of some correspondence in THE LANCET of the 3rd inst. upon uniformity in workhouse dietaries, it may be mentioned that at a meeting of Poor-law authorities held in the Manchester Town Hall to make preliminary arrangements respecting their autumnal conference, this subject was referred to, and it was determined that it should form one of the subjects for discussion there. Dr. Rhodes, a member of the Chorlton Board of Guardians, has devoted much time and attention to this matter, and he was requested to prepare a paper and introduce the subject at the coming meeting. Another matter also fixed upon for debate was "the abuse of lying-in wards and lock wards in workhouse infirmaries."

THE COMING MAYOR.

It is expected that the office of mayor during the ensuing municipal year will be accepted by the present chairman of the Health Committee, Mr. Alderman Schofield. Under his able direction for some years past sanitary work has been vigorously carried on, and although Manchester is as yet far removed from Dr. Richardson's ideal city, still much has been accomplished in setting our house in order from a sanitary point of view. Perhaps one of the most pressing evils of the present time is the smoke nuisance; that, and the improvement of the homes of the poor, may well occupy the serious attention of the council.

THE ROYAL INFIRMARY.

A vacancy in the post of sister-superintendent of nurses at the Royal Infirmary has been caused by the resignation of Miss McKie, who has held that office for some half-dozen years, and under whose *régime* many and important changes have come to pass in the organisation and accommodation for the nurses and sisters. Although the lady is severing her connexion with the infirmary, she will still retain her interest in the institution, as the occasion of her leaving is due to a matrimonial engagement with one of the junior members of the honorary staff. She will leave with many good wishes for her future happiness. Miss Brown, of St. Bartholomew's Hospital, has been appointed her successor.

Some little speculation is already abroad as to who shall represent the Victoria University in the Medical Council under the provisions of the new Medical Act, but it is too soon at present to mention with certainty any names in connexion therewith.

After much asking, the School Board has at last resolved to allow some of the playgrounds to remain open during the evening for the use of all the children living in the crowded districts in which they are situate, irrespective of whether they attend the schools or not. This utilisation of playgrounds and such spaces as we have for children's recreation is much to be commended.

Manchester, July 5th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

PRESENTATION TO DR. G. Y. HEATH, OF NEWCASTLE.

AN interesting meeting took place last Friday in the library of our infirmary, when a congratulatory address was presented to the much-respected lecturer on surgery by his past and present students, who felt the honour which the worthy Doctor has lately received in being admitted by selection to the honorary Fellowship of the Royal College of Surgeons of England to be an appropriate occasion to express the respect in which he is held here in the north. It is very gratifying that the movement originated and was carried out by students, although Dr. Heath's colleagues and many of his professional brethren were also present, and participated in the expressions of esteem which were rendered at the meeting. Dr. Arnison occupied the chair, and the address presented was inscribed in a handsome album, having special views of the Medical School, the University of Durham, the Cathedral, &c. Dr. Heath replied in feeling terms, and stated that he was quite taken by surprise when the presentation was first mooted to him, and that the honour he had received from the College of Surgeons was quite unsolicited on his part. On the conclusion of the meeting the students gave further expression of their feelings in the familiar but hearty form known as "musical honours."

THE LATE REV. CANON EAST, OF NEWCASTLE.

I much regret to notice the death of this estimable clergyman, who died at St. Andrew's Vicarage, Newcastle, last week, in his seventieth year. Although in holy orders, Canon East was intimately connected with our profession, having originally studied and qualified as a surgeon, and, indeed, practised in London, Coventry, and Leicester. He was a man of wide reading and culture, with marked literary tastes, so that he gradually forsook the medical profession, and became connected with the editorial staff of the *Atlas* and other metropolitan newspapers. Finally he directed his attention to theology, and his superior education secured ordination one year sooner than is usual with candidates for holy orders. He came to Newcastle as a curate of St. Nicholas, but in a very short time he received the living of St. Andrews, where he remained for the rest of his life. He was also chaplain to the garrison in this city. Canon East's sympathy with our profession was of the warmest nature, and his early connexion with it enabled him to take a broad and useful view of many questions concerning our medical charities and their administration.

NEWCASTLE CATHEDRAL NURSE AND LOAN SOCIETY.

The annual meeting of this excellent Society was held last week, when it was stated that owing to the liberal response of the public to the appeal for funds, it was enabled to increase the staff of nurses so as to undertake the whole nursing of the sick poor of the city and district where required; but at the present time, it is stated, there are no poor persons in Newcastle suffering from non-infectious disease who has not received the benefit of skilled nursing by the nurses of the Society. The vast extent of this work will be perceived by the following figures within the past twelve months: 1331 cases have been attended, 13,734 visits paid, and 67 night nurses provided, all thoroughly trained. From the invalid kitchen have been given out 5319 pints of milk, 1354 pints of beef tea, 1451 dinners of meat, rabbit, and fish, 154 puddings, also eggs, cocoa, and other drinks. In September last the committee deemed it well to begin to make a small charge for the nourishment given; since that time £16 17*s.* 10*d.* has been repaid by the pence of the patients to the funds of the kitchen. Notwithstanding the bad times, and the very destitute state of most of the sick, some patients have raised by collecting-cards the sum of £6 4*s.* 8*d.*, and promise to do more in better times. At the conclusion of the meeting, Dr. Beatley stated that of 1331 cases attended by the nurses, over 400 had been patients of the Newcastle Dispensary.

FATAL GUNPOWDER EXPLOSION.

I have sometimes referred in these letters to the reckless manner with which gunpowder is handled and stored by miners and their families. An inquest was held at Lumley, in the county of Durham, on the body of a woman, the wife of a miner. It appeared that the deceased was smoking in a room where there were 6 lb. of blasting powder, when an explosion took place and she sustained fatal injuries. It was shown that the powder cask was uncovered, and it is supposed that she had lit a match and let it fall on the powder.

Newcastle-on-Tyne, July 5th.

THE LATE MR. W. WHITE COOPER.—The London *Gazette* announces that "the Queen has been graciously pleased to ordain and declare that Mary Elizabeth Cooper, widow of William White Cooper, Esq., Fellow of the Royal College of Surgeons, Her Majesty's Surgeon-Oculist in Ordinary, deceased, shall henceforth have, hold, and enjoy the style, title, place, and precedence of a widow of a Knight Bachelor of these realms, in as full and ample a manner as she would have enjoyed the same had her husband survived and received the dignity of a Knight Bachelor; and to command that the said Royal Order and declaration be registered in Her Majesty's College of Arms."

EDINBURGH.

(From our own Correspondent.)

UNIVERSITY MUSEUMS AND LABORATORIES.

FOR the last five years, during which period the new University medical buildings have been gradually rendered suitable for the occupation of the several departments of medical training, there has been a great growth in the facilities afforded for students and practitioners who desire to take part in original investigations. In every branch of medicine this is the case. In the Anatomy department the present session signalises the virtual completion of the magnificent collections of Goodsir and Sir W. Turner, which are now arranged in a palatial hall open daily for the use of students. Between each of the glass cases in which these historical specimens are preserved a table and chairs have been provided for the use of those studying, so that they may arrange their books and papers, and be able to work comfortably in any part of the building that may be allotted to specimens illustrating the special subjects upon which they are engaged. In the ample space now at command many treasures are brought to light, and fully available for purposes of study, which were formerly all but lost to view in the midst of the copious and crowded collections of the old University museum. In other departments the increase of space has worked no less satisfactorily in securing greatly increased opportunities for study. In the department of Chemistry, Professor Crum Brown presides over a laboratory replete in its arrangements for pursuing investigations in all branches of that science; the same may be said of the departments of Physiology, Pathology, and Materia Medica. In all these departments original investigations by graduates of the University have been carried on for some years; and it is satisfactory to note that in the important branch of Public Health the same result has now, through the unwearied efforts of Sir Douglas Maclagan, been completely attained; for provision is now made for instructing a large number of medical practitioners and students in the science and practice of hygiene, in connexion with which the University grants the degree of B.Sc. (Public Health department). In this department also a complete bacteriological section is now established, although this branch has been for some years pursued in laboratories set apart for the purpose in the departments of Surgery, Medicine, and Pathology. With the completion of the Public Health laboratories this session the University may be said to have arrived at maturity of development in its relation to the advancement of experimental science; and the large number of papers now issuing from its various departments indicate that the facilities it affords are not only appreciated, but increasingly exercised.

ROYAL SOCIETY OF EDINBURGH.

At the last meeting of this Society an interesting addition was made to the long-standing discussion upon the formation of coral reefs. Dr. Guppy, the medical officer in charge of H.M.S. *Lark*, has utilised his three years' sojourn in the vicinity of the Solomon Islands by making a series of observations upon the growth of corals in a variety of external conditions. The point of chief importance in his paper was one which bears intimately upon past and present theories of coral-island formation. From recent soundings in the Pacific Ocean, and a comparison of their results with observations made in the same oceanic area nearly a hundred years ago, Dr. Guppy arrives at the conclusion that coral reefs do not rise to a greater height than from eight to ten feet from the surface, where they are exposed to the full sweep of the trade winds and the accompanying currents; and that in the Straits, where they are protected from these agents, they rise only to within four or five feet of the surface. He therefore concludes that these reefs never rise actually to the surface without the aid of terrestrial upheaval. During his research, Dr. Guppy collected between seventy and eighty varieties of coral, which he transmitted to London, amongst which the specialist at the British Museum has found between thirty and forty as yet undescribed species.

A CORRECTION.

In my report of Dr. Hunter's paper upon the "Duration of the Life of Red Blood-corpuscles," communicated to the Edinburgh Royal Society a fortnight ago, a grave error concerning his method of investigation was inadvertently committed. In the last issue of THE LANCET Dr. Hunter has indicated and corrected this misconception, and as it is a point of considerable importance, I must refer those interested in his method and its results to his lucid letter on the subject.

Edinburgh, July 6th.

PARIS.

(From our own Correspondent.)

PROFESSOR GRANCHER ON PASTEUR'S INOCULATIONS.

AT the Hygienic Exhibition which is being held in Paris popular lectures are delivered on the various subjects appertaining to public and private sanitation. Professor Grancher who is one of the lecturers on the list, chose for his discourse the divers phases followed by M. Pasteur in his anti-rabic researches, commencing with the day on which he made his communication to the Academy of Sciences (Jan. 24th, 1881) on the saliva of a child who died of rabies in the ward of M. Lannelongue, up to the time of the application of the experimental methods to young Meister which had hitherto so well succeeded in animals. M. Grancher particularly drew the attention of his audience to the objections that have been raised in different quarters to the method. These objections may, he said, be reduced to two principal classes, one of which is that the substance employed by M. Pasteur in his inoculations does not contain any rabic virus; the other, that the greater number of those that had been inoculated had been bitten by dogs that were not rabid. As regards the first objection, the English Commission that came over to Paris a short time ago to study the method returned fully satisfied that the product used by M. Pasteur in his inoculations really contained the rabic virus. As regards the second objection, M. Grancher made the following remarks: Of 1335 persons who were inoculated to June 21st—that is, the day on which he delivered his lecture—he found that of 96 patients who belonged to the first or experimental category—namely, of those in whom the existence of rabies was indisputable—there was only one death, or a mortality of 1·04 per 100, or, in round numbers, 10 per 1000; and of 644 persons of the second or clinical category, 3 succumbed to rabies, or 0·46 per 100 of the mortality, or 5 per 1000 in round numbers. In comparing these statistics with those of the department of the Seine, it will be seen that the average mortality from hydrophobia has been reduced from 160 per 1000 to 7·5 per 1000. These figures apply only to those bitten by mad dogs. As regards the 48 persons bitten by mad wolves before the 22nd of April, there were 4 deaths; but a calculation based upon eight documents communicated to M. Pasteur indicates a mortality of 82 per 100 after the bites of mad wolves. A paper published by Professor Brouardel in the "Dictionnaire Encyclopédique des Sciences Médicales" on rabies gives a mortality proportion of 67 per 100. Thus it may be seen that the difference between the two results is considerable. To give further proof of the value of the anti-rabic inoculations, M. Grancher compared the efficacy of the three different kinds of inoculations that are now generally practised—namely, that of Jenner, that for charbon, and that for hydrophobia. Before the Jennerian vaccination, the non-vaccinated died from small-pox in the proportion of 500 per 1000, those imperfectly vaccinated succumbed in the proportion of 260 per 1000, and those properly vaccinated in the proportion of 23 per 1000. The preservative action of the Jennerian vaccine is therefore represented by the absolute value of 500:23—that is to say, 21·70. Besides, veterinarians numbering more than 200 who employ the charbonous vaccine give the following statistics:—Mortality before vaccination, 120 per 1000; mortality after, 5 per 1000 on an average. The preservative action of the charbonous vaccine is therefore represented by the absolute value of 120:5—that is to say, 24. Finally, the statistics furnished by M. Leblanc to the Council of Hygiene, compared with those of M. Pasteur, concerning hydrophobia, give the following results:—Mortality before the rabic vaccination, 160 per 1000; after vaccination, 7 per 1000. The preservative action of the rabic vaccine is therefore represented by the absolute value of 160:71—that is to say, 21·85. Thus it may be seen that the three vaccines appear to be sensibly equal, and this surely ought to be sufficiently convincing to

anti-vaccinationists. Notwithstanding such convincing proofs, a good deal of scepticism prevails, and will still prevail for some time, as regards the efficacy of the anti-rabic inoculations as practised by M. Pasteur, and nowhere perhaps has this scepticism been more evident than at the Municipal Council of Paris. While M. Pasteur is receiving liberal subscriptions from all quarters, both at home and abroad, the attitude of the Paris Municipal Council is anything but encouraging to M. Pasteur, as at a recent meeting it voted a donation of only £1000, instead of £2000 as originally proposed, for his institute, and it gave him only a ninety years' grant of half the ground he wanted as a site for it. Meanwhile, awaiting the projected building, the laboratory of M. Pasteur has been transferred to the Rue Vauquelin, the premises in the Rue d'Ulm being far too small to accommodate the influx of patients from all parts.

DEATH OF DR. J. M. PRAT.

Dr. J. M. Prat, a well-known aurist and laryngologist, died at his residence in Paris on June 27th, in the sixty-fifth year of his age, after a long and painful malady. He was the son of a physician, and he devoted himself early to the study of natural and biological science, and was for a long time assistant to Gratiolet at the Museum of Natural History. He took his degree in 1848, and was a member of nearly all the scientific societies of Paris. He was much sought in Parisian society for his accomplishments. He was the author of several works on diseases of the ear and on deafness, and contributed largely to the medical periodicals on the same subject. During the war he was attached to an ambulance, and for his services there he was created Chevalier of the Legion of Honour.

DEATH OF A LADY DOCTOR.

Mdlle. Ribard, M.D., of Paris, who accompanied Paul Bert on his appointment as Resident-General at Tonquin, died from dysentery, very much regretted. The deceased lady promised to become remarkably efficient in her profession. She devoted herself specially to diseases of the eye, and had already been successful in curing several mandarins at Hué, and, had she lived, she would have operated on the Dowager-Queen, who was completely blind.

Paris, July 5th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council of the College held on Thursday last, at which all the members were present, the minutes of the extraordinary meeting of June 24th were read and confirmed. Mr. Marshall presented his report as representative of the College on the General Medical Council. This was received and entered in the minutes, and the best thanks of the Council accorded him.

Mr. W. S. Savory was re-elected President by a large majority. Mr. J. Hutchinson and Sir Joseph Lister were elected Vice-Presidents for the coming year. We have referred in another column to the departure from the usual course in regard to the re-election of the President. The appointment of two new Vice-Presidents is also a variation from the ordinary routine.

The following motion, proposed by Mr. Macnamara, was carried:—"That, in pursuance of the resolution of the Council of the 9th of April, 1885, the Committee on the Mode of Election to the Council, and on other matters relating to the Charters and Bye-laws of the College, be requested to report, with as little delay as possible, on the steps taken by them in reference to the preparation of the new sections required in the charters and the formulæ for new bye-laws to give effect to the resolutions of the Council respecting them."

THE VOLUNTEER MEDICAL STAFF CORPS. — The officers and men of this corps gave their first ball at Kensington Town Hall on July 2nd. A number of distinguished patronesses, including the Princess Louise, lent their names and active assistance to further the interests of the corps, which is expected to benefit financially to a considerable extent by the festivity. The corps is to be congratulated on this the first venture, the more especially as it is intended that the ball should be held annually.

Medical News.

UNIVERSITY OF OXFORD.—At a congregation held on the 1st inst., the degree of M.B. was conferred on—

Henry Willingham Gell, Balliol; Edmund Taylor Milner, Merton; Henry John Tylden, Exeter; Henry Patrick Cholmeley, Magdalen; Albert W. Webb, non-collegiate.

UNIVERSITY OF DUBLIN.—The following degrees were conferred last week by the Earl of Rosse, Chancellor of the University:—

BACHELOR IN SURGERY.—Edward Arthur Crampton Baylor, William Jones Crofton, M. J. Eustace, John Christopher Ferguson, Kenneth Frazer, William Vere MacMahon, John Murray, William Napper, Nevill, Samuel Simpson, Richard Henry Smith, Robert Henry Todd (stip. cond.), George Augustus Wade (stip. cond.), Hugh Woods.

LICENTIATE IN SURGERY.—John O'Connor.

BACHELOR IN MEDICINE.—George Hindes Bagot, Edward Arthur Crampton Baylor, Edward Carrigan, William Jones Crofton, William L'Estrange Eames, Marcus J. Eustace, John Christopher Ferguson, Kenneth Frazer, John Wm. Golden, John Murray, William Napper Nevill, Samuel Simpson, Richard Henry Smith, Brooking Soady, Robert H. Todd (stip. cond.), George Augustus Wade, Hugh Woods.

LICENTIATE IN MEDICINE.—John O'Connor, Perceval Cecil Ryan.

DOCTOR IN MEDICINE.—W. Beatty, Geo Cowen, Benjamin Devonsher Dickson, John Samuel Fenton, Kenneth Frazer, Robert Henry Todd.

SOCIETY OF APOTHECARIES.—The following gentlemen passed their examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on the 1st inst.:—

Gregory, Alfred John, Clifton-road, St. John's.
Mackonochie, William, Traverse-street, Parr, St. Helen's.
Stabb, Ewen Carthew, Vincent-square, Westminster.

UNIVERSITY OF LONDON ELECTION.—The poll for a Parliamentary representative closed on Thursday at 4 P.M., with the following result:—Sir John Lubbock, 1314; Mr. Frederic Harrison, 516. The votes of the medical graduates were distributed as follows: for Sir John Lubbock, 495; for Mr. Harrison, 43.

A DENTAL HOSPITAL for Brighton was opened on the 1st inst.

HOSPITAL SUNDAY FUND.—Mr. Henry Irving has remitted to the Lord Mayor the sum of £111 1*s.* 9*d.*, being the amount collected in the boxes at the London theatres for the Hospital Sunday Fund.

MEDICAL MAGISTRATE.—The Lord Chancellor has, on the recommendation of Earl Sydney, Lord-Lieutenant of the County, appointed Richard Rothwell Daglish, M.R.C.S. &c., of New Romney, to the Commission of the Peace for the county of Kent.

FIRE AT THE BRUSSELS UNIVERSITY.—A destructive fire occurred on the 7th inst. at the Brussels University, when the whole of the right wing, where the laboratories, the library, and the great academic hall were situated, was entirely destroyed in less than an hour, though some of the books in the library were saved by the students. The collections of anatomical specimens and surgical instruments and the whole of the left wing escaped destruction. The damage is estimated at one million francs, none of which is covered by insurance.

GUY'S HOSPITAL.—The annual distribution of prizes to the successful students attending Guy's Hospital Medical School took place on the 1st inst. in the presence of a large assembly. The following is a list of the principal prize-winners:—The Treasurer's gold medal for Clinical Medicine, John Wychenford Washbourn; the Treasurer's gold medal for Clinical Surgery, Frédéric François Burghard; the Gurney Hoare prize for Clinical Study (£25), Richard Moody-Ward; the Beaney prize for Pathology (£31 10*s.*), John Wychenford Washbourn; the Mackenzie Bacon prize for Ophthalmoscopy (£10 10*s.*), Sidney Wacher; the Mackenzie Bacon prize for Nervous Diseases (£15), Edward Wilberforce Goodall; the Burdett prize for Hygiene (£10), William Henry Bowes; Sands Cox Scholarship (£15 for three years), Alfred Parkin; the Michael Harris prize for Anatomy (£10), divided between Alfred Parkin and Robert Devereux Mothersole. For Fourth Year's Students, Frédéric François Burghard, first prize (£25), and Francis Stanhope Hawkins, second prize (£10); and for Third Year's Students, Arthur Edward Poolman, first prize (£25), and Ernest Henry Starling, second prize (£10).

THE METROPOLITAN HOSPITAL SUNDAY FUND.

THE following sums, collected in the places of worship mentioned, as well as gifts from individual donors, have been forwarded to the Mansion House since our last issue. The amounts raised in 1885 for the same object are also given for the purpose of comparison, which it will be seen is, with very few exceptions, highly favourable to this year's returns.

	1885.			1886.		
	£	s.	d.	£	s.	d.
Christ Church, Highbury ...	44	0	0	69	3	4
Park Chapel, Chelsea (first time of sending)	—	—	—	80	17	5
R. H. Noble, Esq. (a further)	30	0	0	30	0	0
St. Mark, Tollington-park ...	21	5	6	22	13	0
St. Mary of the Angels, Bayswater	11	11	0	22	5	0
St. John, Upper Holloway ...	25	19	10	22	7	8
Chislehurst Parish Church (St. Nicholas)	178	1	0	243	5	1
Holy Trinity, Beckenham ...	46	11	10	45	9	6
H.R.H. Duke of Cambridge	—	—	—	20	0	0
St. Barnabas, Kensington ...	100	7	2	136	2	1
Christ Church, North Brixton	49	15	8	54	8	8
St. Margaret, Lee	67	4	1	70	15	0
Finsbury-park and Gillespie-road Wesleyan Chapels ...	46	17	11	35	18	5
Lady Tilson (a further) ...	50	0	0	50	0	0
All Saints, Ennismore-gardens	223	15	6	340	4	8
Emmanuel (Parish Church) Forest Gate, E.	30	5	2	36	12	8
St. Paul's Congregational Chapel, Kentish Town ...	15	10	0	20	14	0
Royal Hospital Chapel, Greenwich	10	3	0	22	1	6
St. John, Chelsea	19	10	7	20	15	0
Lewisham High-road Congregational Church ...	44	14	3	43	7	9
Holy Trinity, Paddington ...	183	12	6	242	14	8
St. John, Notting-hill ...	70	5	0	77	1	8
St. Marylebone Parish Church	92	8	3	85	8	4
St. Jude, East Brixton ...	50	0	0	78	5	6
Leyton Parish Church and Phillbrook Mission ...	24	5	7	24	0	4
St. Paul's Presbyterian Church, Westbourne-grove	35	6	0	52	10	0
All Saints, Clapton Park ...	23	0	11	20	4	10
Hanwell Parish Church ...	—	—	—	21	10	0
St. Peter, East Dulwich ...	43	11	2	48	8	0
St. Mary, Hammersmith-road, Fulham	108	0	4	52	12	10
St. Paul, Onslow-square, and Mission Hall	261	1	0	368	8	2
Stepney Parish Church and Schools	63	6	6	42	11	8
Emmanuel Church, Streatham	69	17	8	82	13	10
Hammersmith Parish Church and St. Mark...	27	18	11	30	18	5
St. Mark, Hamilton-terrace .	200	1	7	223	18	2
Holy Trinity, Sydenham ...	107	3	0	117	16	0
St. Marylebone Chapel ...	21	0	0	35	10	6
St. Dominic, Haverstock-hill	22	13	10	24	8	2
St. Mary, Kilburn	68	0	5	87	5	1
St. Philip, Regent-street ...	15	18	2	31	0	11
Holy Trinity, Lambeth ...	14	14	5	20	0	3
St. Paul, Mill Hill	20	0	0	26	13	5
St. Alphage, London Wall ...	26	7	0	24	6	10
West Ham Parish Church ...	27	16	7	33	16	4
All Saints, Upper Norwood...	21	6	3	31	16	2
St. Augustine, South Kensington, and Banstead Asylum	*31	11	4	107	5	0
St. Michael, Chester-square (with additions)	951	4	6	1006	4	0
Portman Chapel, Baker-street	168	12	5	165	16	7
St. Mary, Bryanston-square .	118	12	6	93	15	3
St. Paul, Great Portland-street	30	0	0	39	10	0
Eaton Chapel, Eaton-square	61	7	6	72	4	5
Grosvenor Church, South Audley-street	107	8	8	141	9	4
St. Peter, Streatham	38	4	9	36	7	2
Lock Chapel, Harrow-road ...	59	15	7	51	6	6
Dutch Church, Austin Friars	26	12	0	25	6	6
St. Mary Aldermary, St. Thomas, St. Antholin, and St. John the Baptist, City	87	10	11	87	11	6
St. Mildred, Lee	44	17	1	45	7	3
Miss Windle	—	—	—	50	0	0
The Oratory, Brompton ...	36	2	0	36	0	0
St. Giles-in-the-Fields ...	32	5	0	41	14	0
Chiswick Parish Church ...	21	0	0	31	3	7
Church of the Ascension, Balham	62	19	0	68	11	10
St. James, Paddington ...	122	6	11	141	6	10
The Hon. Richard Strutt ...	—	—	—	25	0	0
Holy Trinity, Penge	27	11	0	40	0	0
Box outside the Mansion House	—	—	—	18	13	5
John Smith, Esq.	—	—	—	50	0	0
Chigwell Church, Essex ...	—	—	—	22	13	7
Green Lanes Wesleyan Church	*16	9	10	*30	3	8
St. Thomas, Westbourne-grove	51	10	10	70	0	0
West Hackney Parish Church	42	11	0	51	4	1
St. Luke, Chelsea	39	6	9	44	16	9
West Kensington Congregational Church	—	—	—	21	15	0
Hayes (Kent) Parish Church	29	17	0	24	1	9
Old Church, Chelsea	24	0	0	23	15	0
Magdalen Hospital Chapel ...	23	14	2	34	1	7
Clapton Wesleyan Chapel ...	18	13	9	20	9	0
St. Katherine's Royal Hospital Chapel	43	10	0	29	5	0
Upper Holloway Baptist Chapel...	34	2	9	40	1	3
Holy Trinity, Islington ...	41	4	11	35	13	6
East Finchley Congregational Church	21	14	0	23	0	0
Chapel of the Boys' Home, Regent's-park	27	11	6	37	4	2
St. Pancras Parish Church ...	75	10	9	74	7	9
St. Paul, East Molesey... ...	11	0	0	25	5	2
Church of Immaculate Conception, Farm-street ...	8	10	0	33	4	6
St. James, Elmer's-end, Beckenham	12	9	10	20	14	0
Christ Church, Woburn-sq.	30	2	0	40	1	8
St. Jude, South Kensington (corrected per Rev. Dr. Forrest)	717	2	0	852	19	7
St. Peter, Eaton-sq., £344 16s. 10d.; St. John, Wilton-rd., £30 15s. 11d.; St. Peter's Chapel, £7 14s. 7d.... ...	578	14	0	743	7	4
St. Mary Abbots, Kensington, £393 10s.; Christ Church, Victoria-rd., £109 12s. 2d.; St. Paul, Vicarage Gardens, £65 4s. 6d.	484	9	7	529	6	8
St. Stephen, Westbourne-pk.	117	12	11	145	0	0
St. Thomas, Westbourne-pk. (iron church)	51	10	10	60	0	0
Friern Barnet Parish Church and St. John's Temporary Church	22	17	4	25	1	5
All Saints, Friern Barnet ...	21	17	9	26	12	0
St. Mark, Clerkenwell ...	18	16	9	25	1	1
Bloomsbury Chapel	47	19	2	49	7	3
St. Peter, Paddington, and Schools	27	10	0	30	0	0
London Hospital Chapel ...	23	8	2	27	12	0
St. James, Hatcham	12	9	6	20	14	0
St. James, Marylebone ...	86	7	6	67	10	0
All Saints, Kensington Park	48	17	10	55	5	10
Christ Church, Beckenham ..	36	5	3	50	0	0
All Saints, Hatcham Park ...	35	16	6	31	15	0
St. James, Piccadilly... ...	125	10	3	108	17	9
Chapel Royal, Tower... ...	10	0	0	20	0	0
Willesden Parish Church ...	—	—	—	29	10	0
Christ Church, Brondesbury	20	15	6	22	10	3
St. Mary, Lewisham	31	11	11	36	13	9
St. German, Blackheath ...	38	1	10	48	6	7
Heath-street Baptist Chapel, Hampstead	39	12	2	39	14	6
Wanstead Churches	37	5	2	46	2	6
St. Peter, Bayswater	112	13	0	169	6	0
Christ Church, Mayfair ...	71	0	0	82	1	0
Stamford Hill Congregational Church	32	14	5	56	9	11
St. Thomas, Portman-square	68	9	1	140	4	3
Emmanuel Church, Dulwich	12	18	3	21	0	3
Hornsey Parish Church, Chapel of Ease, and Sunday Schools	50	19	2	48	8	10
St. Mark, Kennington ...	38	14	5	41	7	0
St. James and Mission Church, Clapton	22	10	6	21	0	0
St. John the Divine, Kennington	38	13	7	36	18	7
All Saints, Camberwell ...	38	11	5	36	12	10
St. Saviour, Paddington ...	62	16	1	67	14	7
St. Stephen, Avenue-road ...	36	9	1	30		2

* Moiety.

	1885.			1886.		
	£	s.	d.	£	s.	d.
St. Mary, Tothill-fields ...	14	18	8	20	14	10
St. Saviour, Brixton-hill ...	22	0	8	25	5	11
St. John the Baptist, Leyton-stone	26	15	6	28	7	1
Blackheath Congregational Church	60	5	10	101	6	3
St. Barnabas, Holloway ...	†22	13	3	31	12	11
Regent-square Presbyterian Church	122	15	0	117	11	6
Holy Trinity Church and Mission, Greenwich ...	30	15	7	37	4	0
St. John, Deptford	56	7	0	62	5	6
Theistic Church, Swallow-street, W.	16	12	2	58	5	0
Park Congregational Chapel, Camden Town	46	18	9	32	2	0
Downs Baptist Chapel, Clapton	33	12	0	36	4	9
Beddington Parish Church...	†25	14	1	†37	14	6
All Saints, Putney Common	25	7	3	40	0	0
St. Luke, Hackney	29	8	3	36	8	0
Bromley (Middlesex) Parish Church	8	12	10	26	6	7
Whitechapel Parish Church .	17	5	9	30	12	9
Pro-Cathedral, Kensington ..	32	10	0	38	3	0
Archway - road Wesleyan Chapel...	19	10	10	22	3	2
Catholic Apostolic Church, Gordon-square	20	10	9	22	0	11
St. Andrew, Holborn... ...	24	8	11	25	4	0
New College Chapel, South Hampstead	†16	2	6	28	10	0
Putney Parish Church ...	23	0	0	24	8	0
St. John the Evangelist, Putney	52	0	0	53	14	8
Finchley Parish Church ...	45	13	2	51	6	0
St. James, Norlands	70	3	6	80	6	10
Mrs. Sloane Stanley	—	—	—	30	0	0
"A Friend"	—	—	—	100	0	0
William Vokins, Esq.	—	—	—	50	0	0
B. Brodie Hoare, Esq.	—	—	—	50	0	0
St. Dunstan, East Acton ...	32	11	0	36	8	4
St. Anne, Soho...	90	10	0	122	0	0
Camden Church, Camberwell	113	2	10	113	3	2
Kensington Presbyterian Church	37	0	0	40	0	0
St. Matthew, Bayswater ...	200	6	7	217	9	11
St. Andrew, Upper Norwood	21	6	3	30	0	0
Brockley Baptist Chapel ...	—	—	—	29	2	4
St. Stephen, Lewisham ...	43	5	10	33	12	6
Hon. and Rev. A. C. Stanley	—	—	—	20	0	0
All Saints, Child's Hill ...	30	4	0	36	9	2
Hendon Churches	39	5	5	48	0	0
Epsom Parish Church ...	31	2	1	26	14	11
Chapel of Ease, Holloway ...	29	14	3	20	11	9
St. James, Muswell-hill ...	19	11	7	20	19	4
St. Peter, Vere street (with additions)	215	0	0	241	14	6
St. George, Campden-hill ...	51	2	10	54	0	8
St. Saviour, Denmark-park...	25	3	2	30	2	3
St. Mark, North Audley-street (with additions) ...	220	5	2	288	1	7
All Souls, Langham-place ...	99	15	3	100	3	6
Christ Church, Streatham ...	40	1	11	46	7	0

	1885.			1886.		
	£	s.	d.	£	s.	d.
Crouch Hill Presbyterian Church	35	10	0	29	2	1
Roupell - park Wesleyan Church	16	18	4	24	14	9
"A Lady" (S.E.)	—	—	—	100	0	0
"N. A. S."	—	—	—	5	0	0
Clapham Congregational Church	63	19	0	86	10	1
St. Michael, Paddington ...	152	0	7	149	13	9
G. H. Waterhouse, Esq. ...	—	—	—	25	0	0
Clapton Park Congregational Church	55	7	8	48	8	2
Hampstead Unitarian Church	69	0	0	82	1	0
Christ Church, Greenwich ...	31	9	11	32	16	6
Hanover Church, Regent-street (corrected)	17	11	7	26	15	6
Great Stanmore Parish Church	22	19	0	33	14	9
St. Peter, Norbiton	27	1	8	26	13	4
St. Paul, New Beckenham ...	103	4	3	100	0	0
Brixton-hill Wesleyan Chapel	81	2	3	79	16	4
St. Mary Boltons, S. Kensington	55	8	1	81	0	0
Brompton Church	332	9	6	404	2	0
St. John, Deptford (with addition)	56	7	0	62	16	0
Denmark hill German Evangelical Church	44	0	0	48	1	0
Camden-road Baptist Chapel	25	5	2	38	8	4
St. Giles, Cripplegate, ...	63	13	9	46	9	8
Kensington Congregational Church	68	3	0	71	13	0
Christ Church, Chislehurst	60	15	6	47	10	3
St. John the Baptist, Kingston-vale	*6	3	5	‡48	14	8
St. Columba, Scotch Church, Pont-street	86	12	3	84	10	10
Emmanuel Church, Maida-vale	57	17	10	71	11	0
St. Mary Magdalene, Paddington	†48	12	0	†56	15	4
St. Saviour, Hampstead ...	37	11	3	28	9	3
Aldenham (Herts) Parish Church	15	3	0	23	0	0
Beckenham Congregational Church	8	8	0	24	0	0
St. Barnabas, Pimlico ...	43	9	10	43	16	3
St. Mary, Bourdon-street ...	19	7	3	20	8	9
Lambeth Parish Church ...	16	1	3	25	0	9
St. Luke, Nutford-place ...	24	9	7	32	16	11
St. Mary, Balham	63	14	9	68	16	7
St. Andrew, Wells-street ...	110	12	2	130	12	9
John McAndrew, Esq. ...	—	—	—	20	0	0
St. James, Clerkenwell ...	20	12	6	25	0	0
Tandridge (Surrey) Parish Church	10	0	0	21	2	2
Christ Church, Lancaster-gate	519	8	10	565	13	0
Holy Trinity, Eltham, Kent	—	—	—	59	8	7
St. Paul, New Southgate ...	12	0	0	15	17	0
St. Gabriel, Canning-town ...	2	5	9	5	2	6
North Finchley Congregational Church	—	—	—	27	0	0

* Moiety. † Proportion. ‡ Two-thirds offertory.

The total sum received up to Thursday evening last amounts to £31,300 (quite £5000 more than on the corresponding day last year).

ERRATUM.—In our list of collections published last week, page 60, line 1, for "Merton Park Church," &c., read Merton *Parish* Church.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

CHARLTON, CLIFTON, M.B., C.M.Ed., has been appointed Assistant House-Surgeon to the Liverpool Northern Hospital, vice Fisher, promoted.

CLARKE, J. MICHELE, M.A., M.B.Cantab., has been appointed Assistant Physician to the Bristol General Hospital.

FISHER, ALFRED, M.R.C.S., L.R.C.P.Ed., has been appointed Senior House-Surgeon to the Northern Hospital, Liverpool, vice Johnston, resigned.

GRIFFIN, JOHN, M.B., C.M., has been appointed Assistant Physician to the Royal South Hants Infirmary.

HENDERSON, G., M.R.C.S., has been appointed Medical Officer for the Carham District of the Glendale Union.

HERN, JOHN, M.D.Edin., M.R.C.S., has been appointed Ophthalmic Surgeon to the Darlington Hospital.

HOWE, J. DUNCAN, M.R.C.S., L.S.A., has been appointed Resident Medical Officer to the Manchester Workhouse Infirmary.

LIDDARD, THOMAS, M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer to the Workhouse, Mary-place, of the Parish of St. Mary Abbotts, Kensington.

LOWNDS, HENRY A., L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Kirkbinton District of the Hudderfield Union.

OSWALD, ROBERT J. W., M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Seventh District of the Parish of St. Mary, Lambeth.

POPE, H. F. M., M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the First District of the Malling Union.

SMITH, G., M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Ford District of the Glendale Union.

SMITH, J. E., M.R.C.S., L.S.A., has been appointed Medical Officer for the Fifth District of the Malling Union.

TAYLOR, THOMAS, L.F.P.S.Glas., L.M., L.S.A., has been appointed Medical Officer of Health for Mile-end Old Town.

THOMAS, J. L., M.D., has been appointed Physician to the Royal South Hants Infirmary.

WALKER, R., M.D., has been appointed Medical Officer for the Wooler District of the Glendale Union.

Births, Marriages, and Deaths.

BIRTHS.

COOKSON.—On the 1st inst., at Eastbourne, the wife of Surgeon-Major Cookson, of a son.

CROOKSHANK.—On the 30th ult., at Yaldham, Kent, the wife of Edgar M. Crookshank, Esq., M.B.Lond., of a daughter.

LEFTWICH.—On the 5th inst., at The Limes, Brixton-road, S.W., the wife of Ralph W. Leftwich, M.D., of a son.

LEWERS.—On the 30th ult., at Wimpole-street, Cavendish-square, W., the wife of Arthur H. N. Lewers, M.D.Lond., of a daughter.

MORRIS.—On the 27th ult., at Devonshire-place, Brighton, the wife of John Morris, M.R.C.S., of a daughter.

NUNN.—On the 2nd inst., at Feckenham, near Redditch, the wife of J. R. Nunn, M.R.C.S., L.S.A., of a son.

RAKE.—On the 5th inst., at Herne-hill, the wife of Beaven Neave Rake, M.D.Lond., Government Medical Officer, Trinidad, of a son.

WALKER.—On the 5th inst., at Hotham House, Putney, the wife of Alexander Walker, M.D., of a daughter.

WHITE.—On the 29th ult., at Winchester, the wife of Surgeon-Major Charles White, Army Medical Staff, of a son.

MARRIAGES.

CLABBURN—SPAGNOLETTI.—On the 30th ult., at the Parish Church, Marylebone, T. George Clabburn, M.R.C.S., to Charlotte Ellen, eldest daughter of Charles Spagnoletti, Esq., of The Poplars, Aberdeen-place, N.W.

DAVIES—AIRD.—On the 1st inst., at St. Mary's, Pembroke, Arthur Mercer Davies, Surgeon, Army Medical Staff, Netley, to Evelyn Crosbie Aird, youngest daughter of the late Capt. David Aird, R.N., of The Anchorage, Pembroke.

DOBIE—ROSS-CHURCH.—On the 7th inst., at the Parish Church, St. Marylebone, by the Rev. F. Braithwaite, Stanley Locker Dobie, Surgeon-Major, 4th Madras Cavalry, to Violet Theodora, third daughter of Colonel T. Ross-Church, and granddaughter of the late Captain Marryat, R.N.

LAWRENCE—JOSEPH.—On the 30th ult., at the Bayswater Synagogue, Lourie Asher Lawrence, M.R.C.S., to Lizzie, eldest daughter of I. S. Joseph, of Clapham, and adopted child of H. S. Joseph, of Queensborough-terrace.

MASON—ROBERTS.—On the 30th ult., at Grafham, Huntingdonshire, John Mason, M.B., M.R.C.S., of Windermere, to Amy Isabella, only daughter of the late Colonel G. B. Roberts, Madras Light Cavalry.

SCARTH—MASTERS.—On the 6th inst., at St. Mark's Church, Lewisham, S.E., Isaac Scarth, M.B., B.S.Lond., to Rosa Marion, daughter of the late G. C. Masters, of Lewisham.

DEATHS.

DEARDEN.—On the 27th ult., at his residence, Lytham (after a long and painful illness), James Dearden, M.R.C.S., L.S.A., in his 56th year.

EBDEN.—On the 14th ult., at Haughley, Rondebosch, near Cape Town, Henry Anderson Ebden, M.D. (late Bengal Medical Establishment, H.E.I.C.S.), President of the Medical Committee, in the 62nd year of his age.

TITLEY.—On the 30th ult., James Titley, M.D., of Brigg, Lincolnshire, aged 45.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

ALCAN, F., Paris.

Les Bactéries et leur Rôle dans l'Anatomie et l'Histologie Pathologiques des Maladies Infectieuses. Par Professeurs Cornil et Babes.' Deuxième Edition, revue et augmentée. pp. 839, avec 348 Figures.

APPLETON & Co., New York.

Medicine of the Future: an Address prepared for the Annual Meeting of the British Medical Association in 1886. By Austin Flint, sen., M.D., LL.D. pp. 37.

BAILLIÈRE ET FILS, Paris.

De l'Ostéoclasie. Par le Dr. A. Pousson. pp. 261, avec Figures.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

A Manual of Bandaging: adapted for Self-Instruction. By C. Henri Leonard, A.M., M.D. Second Edition, Revised. pp. 150.

Ambulance Work: Questions and Answers upon "First Aid to the Wounded." By J. W. Martin, M.D., and John Martin, F.R.C.S.Ed. pp. 47.

BLACKWOOD & SONS, Edinburgh and London.

Cookery for the Sick and Convalescent. By Barbara Thomson. pp. 76.

CASSELL & Co., London, Paris, New York, & Melbourne.

Memorials of the Craft of Surgery in England. From materials compiled by John Flint South. Edited by D'Arcy Power, M.A.Oxon., F.R.C.S.Eng. With Introduction by Sir J. Paget, Bart., F.R.S. pp. 412, with Coloured Plates and Engravings.

CHURCHILL, J. & A., New Burlington-street, London.

An Introduction to General Pathology. By John Bland Sutton, F.R.C.S. pp. 390, with numerous Illustrations.

Materia Medica: a Manual for the Use of Students. By Isambard Owen, M.D., F.R.C.P. Second Edition, Revised in accordance with the B.P. of 1885. pp 228.

Private Treatment of the Insane as Single Patients. By Edward Rast, M.R.C.S., L.S.A. pp. 68.

The Modern Treatment of Stone in the Bladder by Litholapaxy. By P. J. Freyer, M.A., M.D., &c. pp. 113, with Illustrations.

On Some Forms of Paralysis from Peripheral Neuritis. The Harveian Lectures for 1885. By Thomas Buzzard, M.D.Lond., &c. pp. 147.

On Cancerous Affections of the Skin. By George Thin, M.D. pp. 87.

DOIN, O., Paris.

Manuel Pratique des Maladies des Fosses Nasales et de la Cavité Naso-pharyngienne. Par le Dr. E. J. Moure. pp. 296, avec 53 Figures et 4 Planches.

FANNIN & Co., Dublin; BAILLIÈRE, TINDALL & COX, London, MACLACHLAN & STEWART, Edinburgh.

History of the Royal College of Surgeons in Ireland and of the Irish Schools of Medicine, including numerous Biographical Sketches, also a Medical Bibliography. By Sir Charles A. Cameron, President.

KIMPTON, HENRY, High Holborn, London.

Chemistry of the Carbon Compounds, or Organic Chemistry. By Prof. V. von Richter. Authorised Translation by Edgar Smith, Prof. Chem. From the Fourth German Edition. pp. 710, with Illustrations.

LEDGER, SMITH, & Co., St. Mary Axe, London.

The Medical Digest, or Medical Practitioner's Vade-Mecum. By Richard Neale, M.D.Lond. Second Edition, with Appendix. pp. 723–250.

LEWIS, H. K., Gower-street, London.

The Student's Manual of Venereal Diseases. By Berkeley Hill and Arthur Cooper. Fourth Edition. pp. 118.

LOESCHER, E., & Co., Rome.

Corrado Tommasi-Crudeli: Il Clima di Roma. Conferenze fatte nella Primavera del 1885, inaugurando l'Instituto d'Igiene Sperimentale della R. Universita di Roma.

MACMILLAN & Co., London.

On Disorders of Digestion, their Consequences and Treatment. By T. Lauder Brunton, M.D., F.R.S. pp. 380, with Illustrations.

MAY, J., Aldershot.

The Elements of Squad, Company, and Battalion Drill. By J. Buckley, Q.M., Medical Staff. pp. 47.

PENTLAND, YOUNG J., Edinburgh.

Synopsis of Therapeutics. By R. S. Aitchison, M.B.Edin. pp. 120.

The Refraction and Accommodation of the Eye and their Anomalies. By E. Landholt, M.D. Translated under the Author's supervision by C. M. Culver, M.A., M.D. pp. 600, with 147 Illustrations.

PUTNAM'S SONS, New York & London.

How to Care for the Insane: a Manual for Students. By W. D. Granger, M.D. pp. 96.

Manual of Differential Medical Diagnosis. By C. W. Cutler, M.S., M.D. pp. 161.

SAMPSON LOW, MARSTON, & RIVINGTON, Fleet-street, London.

New South Wales and Victoria in 1885. By Douglas M. Gane. pp. 207.

An Account of a West Indian Sanatorium, and a Guide to Barbadoes. By Rev. J. H. S. Moxley. pp. 209.

Carlsbad and its Environs. By John Merrylees. With a Medical Treatise on the Use of the Waters. By B. London, M.D. pp. 199, with Illustrations.

SMITH, ELDER, & Co., Waterloo-place, London.

Dictionary of National Biography. Edited by Leslie Stephen. Vol. VII.: Brown—Burthogge. pp. 453.

WRIGHT, JOHN, Bristol.

Elementary Bandaging and Surgical Dressing. By Walter Pye, F.R.C.S. pp. 185.

The Church, the Laity, and the Hospitals; by B. Burford Rawlings.—Ichthyol und Resorcin; von Dr. P. G. Unna.—Tonsillitis in Adolescents; by C. Haig-Brown, M.D.—True Socialism; by C. Gelkie, D.D.—Jarrold's Guide to Norwich.—Index Medicus, Vol. VIII., No. 5.—Report of the Board of Managers of the Pennsylvania Hospital.—Report of the Mansion House Council on the Dwellings of the People for 1885.—Deutsches Bäder-Coursbuch nach officiellen Quellen bearbeitet.—De l'Éléphantiasis des Arabes chez les Enfants; par le Dr. Moncorvo. (Paris, Steinheil.)—Variola Discreta, Photographs of a Case; by Dr. J. A. Thompson. (Sydney, Richards.)—Principles of the Treatment of Dislocations and Fractures; by Hugh O. Thomas. (London, Lewis.)—Baden-Baden und Seine Kurmittel. (Wild, Baden-Baden.)—Where to take a Holiday: Holiday Number of the London Medical Record.—South Africa as a Health Resort; by Arthur Fuller, M.B., C.M.Ed. (Whittingham, London.)—The Holiday Annual. (Causton, London.)—Medical Tracts for the Times; by James Craig, M.B.Ed., and William Maule, M.B., &c. (Pentland, Edinburgh.)—Beiträge zur Physiologie und Pathologie der Verdauung; von Prof. Ewald und Dr. Boas.—Bazaars and Christianity; by M. O. D.—Développement de la Méthode de Scarenzio; par G. Smirnoff. (Helsingfors.)—Transactions of the Medical and Physical Society of Bombay, No. 8, New Series.—Babyhood: a Magazine for Mothers. (New York.)—Bourne's Handy Assurance Directory, 1886.—A Word for Ireland; by T. M. Healy, M.P.—El Himen en México; por Prof. F. A. Flores.—Surgical Operation Chart; Arranged and Tabulated by L. H. Ormsby, M.D., F.R.C.S.—Good Words, Sunday Magazine, (Isbister.)—Leisure Hour, Sunday at Home, Boys' Own Paper, Girls' Own Paper (with Summer Number), for July.—Beiträge zur Klinischen Chirurgie; herausgegeben von Dr. Paul Bruns, Zweiter Band. (Laupp'schen, Tübingen.)

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 8th, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
July 2	30·33	S.E.	60	56	110	81	55	...	Hazy
,, 3	30·32	S.E.	60	61	112	86	59	...	Hazy
,, 4	30·27	W.	74	66	122	89	66	...	Bright
,, 5	30·26	N.W.	71	63	122	84	63	...	Bright
,, 6	30·14	S.W.	72	64	125	88	63	...	Bright
,, 7	29·96	N.W.	70	64	118	85	62	...	Hazy
,, 8	29·77	N.	62	61	91	70	59	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

Letters requiring notice must be authenticated by the name and address of the writer.

We cannot undertake to return MSS. not used.

ALCOHOL IN HOSPITALS.

THE Secretary of the Middlesex Hospital objects to the statement of the *Irish Temperance League Journal* as to the proportion of alcohol used by patients and officials respectively in the hospital. He declares that the calculation attributed to him was never made. We entirely accept his correction, and trust our temperance contemporaries will do the same. They are always and properly demanding accuracy of data and inference in this important question, and it would be a great mistake if they sought to enforce their views by using a disowned and unauthorised statement. It must tend to disturb Mr. Green's mind that such a statement was part of the infirm ground on which he based the justification of his wasteful destruction of good port wine.

Orthographer.—Both forms of spelling are in use, and either is correct, though "whooping-cough," as being more expressive of the forcible inspiratory act characteristic of the disease, is now usually adopted.

PONDEROUS BREASTS.

To the Editor of THE LANCET.

SIR,—I have a patient who suffers from great pain round the waist, and in the breasts almost constantly, due to the size of her breasts, which are unusually large. She complains that they make her life a burden to her, and constantly entreats me to amputate them. Would this be justifiable? Their weight produces a constant dragging pain from the clavicle downwards, and from the back and sides forwards, relieved when the weight of the breast is supported. Is there any known means of causing the breasts to contract by the application of any drug? If their weight and size could be greatly reduced it would be a boon. If any of your readers can from experience of a similar case suggest a trustworthy line of treatment I shall be most grateful.

I am, Sir, your obedient servant,

June 30th, 1886. M.B.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—In your report of the discussion on Mr. Brudenell Carter's paper on cataract extraction (June 26th, page 1222), I am reported to have said that I had performed Mr. Anderson Critchett's operation "in severe cases." Instead of "severe" *seven* was what I said.

Believe me, Sir, faithfully yours,

Leicester, July 6th, 1886. FRANK H. HODGES.

THE PROGRESS OF CHEMICAL SCIENCE IN JAPAN.

FROM the annual report of the Tokio Chemical Society which was recently presented it appears that the study of chemical science is making rapid progress in Japan. Ten ordinary meetings and one annual meeting were held during the year, at the latter of which an important paper on the "Constitution of some Non-saturated Oxygenous Salts" was read. The Society has undertaken to translate chemical terms into Japanese, and it now possesses a dictionary of the commoner chemical terms in Japanese, English, French, and German. It has also undertaken to establish a system of chemical nomenclature in the Japanese language, of which the nomenclature of elements and of inorganic compounds is already nearly finished.

E. A. P.—The case mentioned appears to come distinctly under Art. 189 of the General Consolidated Orders, and the fee could no doubt be recovered in the county court. As an alternative course, pressure might be put upon the Local Government Board, either through the Poor Law Medical Officers' Association or by means of a question put in the House of Commons.

M. PASTEUR'S CURE OF HYDROPHOBIA.

To the Editor of THE LANCET.

SIR,—Having during the past week seen more than 250 inoculations performed in the Rue Vauquelin, and read over a number of the histories of patients operated on by Dr. ROUX, I have come to the conclusion that there is no longer any reasonable doubt of the immense advance made in therapeutics by M. Pasteur's process for the cure of hydrophobia. The statistics are so telling that no one, I think, can read them without feeling convinced that an all-important discovery has been made. M. Grancher, whose abilities as a physician all are aware of, takes the date of April 22nd, 1886, as the one which allows of his drawing a conclusion warranted by the length of incubation of hydrophobia, and then shows that M. Pasteur has treated ninety-six cases of persons who had been bitten by dogs which were proved to be rabid because other animals bitten by them had died rabid, or because rabbits inoculated from their brain and spinal cord had succumbed to the disease. Of these ninety-six cases there was only one death. Again, of 644 cases of bites by dogs which were certified as rabid by the veterinary practitioner of the commune when they were bitten, only three of those treated died. Taking these two groups together, the death-rate of those treated was only 0·75 per cent., against 16 per cent., which is the death-rate assigned to a similar set of cases by M. Leblanc, Veterinary Surgeon of the City of Paris, where patients had been treated by other methods. In addition to these, M. Pasteur has treated forty-eight persons bitten by rabid wolves, and seven of these, or 14 per cent., have died, whereas the death-rate of persons bitten by wolves has been shown by M. Brouardel to be 68·5 per cent. Putting these facts together, M. Grancher contends with truth that Pasteur's treatment is twenty-three times as successful against the bites of dogs as the treatments of past times. I may add that the treatment seems to me to be perfectly and absolutely innocuous, and that the only pain felt by the patient consists in the prick given in the abdomen by the injection syringe ten times on ten consecutive days. The process, too, of inoculating the rabbits is now so simplified that there can be not the slightest reason, except popular prejudice, why M. Pasteur's inoculations should not be performed in every country. All that is required is that an inoculated rabbit should be imported, and then that other rabbits should be inoculated from it at its death. In this way the practice of inoculations might become at once generalised in every civilised country so long as rabies exists, which, of course, it will not do when the muzzling of dogs is as well carried out as it is in Berlin and North Germany. In the meantime all persons bitten by suspicious dogs should without any delay avail themselves of the noble offer of M. Pasteur to cure them of the most fatal of all diseases.

I am, Sir, your obedient servant,

C. R. DRYSDALE, M.D.,
Senior Physician, Metropolitan Free Hospital of London.

Paris, June 3rd, 1886.

P.S.—This morning 102 patients were inoculated by M. Roux at the Rue Vauquelin.

THE COVENTRY PROVIDENT DISPENSARY.

To the Editor of THE LANCET.

SIR,—In your current issue (p. 16) I see the above institution spoken of as "one of the sound and old-fashioned provident dispensaries which prospers." Four medical men receive an average of £347 per annum, which sounds well; but whenever I have visited Coventry—and that has been frequently over a series of years—I have heard numerous complaints about the dispensary, as most damaging to the profession, by including for cheap attendance a large number of well-to-do people. If the actual facts could be ascertained through your columns they would be interesting. I am, Sir, yours obediently,

July 4th. A CONSULTANT.

"HOW NURSES CAN HELP."

A. P. ROCHE wishes to correct an error which occurred under the above heading in THE LANCET of July 3rd. It was not the household of the Earl of Howe from which her collection was made, but that of the Earl of Home.

Subscriber.—The Brussels M.D. can be so registered.

THE LATE DR. J. S. RIDLEY OF PRESTON.

WE have been asked to mention that an appeal is being made on behalf of the late Dr. Ridley's widow and two daughters, who have been left in straitened circumstances. The circumstances appear to be such as to call for the practical sympathy of the profession. Mr. H. A. Smith, of Burnham Lodge, Ealing, W., will be glad to receive subscriptions to the fund which has already been opened.

SHIP SURGEONS.

To the Editor of THE LANCET.

SIR,—It is not my wont to rush either into print or controversy, but the remarks of your correspondent, "M. A. P.," in your issue of June 26th, being so utterly at variance with my own experience of ship-life, which is of some duration, I cannot let them pass without comment.

Concerning precedence, a surgeon has, and always must have, absolute control of his own department; and knowing this, why should he trouble whose name is first on an often varied list, or wish to infringe on the purser's undoubted right to arrange passengers' seats? If "tagrag and bobtail" (to quote "M. A. P.") are placed next to him, a little healthy "chaff" in the right quarter will prevent such a thing happening a second time. Concerning vaccination fees, they are a matter of agreement with a company beforehand, and therefore cannot be grumbled at; but I have never known a case of a surgeon going short of passengers' fees if he has any scope at all, or is deserving of them. His sanitary reports, if thorough without being vexatious, will seldom be challenged, and I think it would be an unusually bold captain who, knowing the importance of patients being seen at all times, would take the grave responsibility of keeping his surgeon off the quarter or any other deck, and am sure that if the medical officer had any self-assertion such a thing would be impossible, unless from reasons of general misbehaviour. Members of our profession find themselves employed professionally on the ocean from several causes, the chief one, I believe (and hope), being for health's sake; and, I think, in the vast majority of cases, are on the best of terms with their brother officers, for such they are for the time being. If a general system of give-and-take is acted upon, it will be an exceptionally small ship that will not be large enough for every one within his due and lawful right.—I am, Sir, yours faithfully,

W. T. HARRIS, Surgeon.

R.M.S. *Hawarden Castle*, East India Dock, E., June 29th, 1886.

"AN APPEAL."

To the Editor of THE LANCET.

SIR,—Referring to my appeal in your issue of the 26th ult., for the insertion of which allow me to thank you, I regret to say that it has not been responded to in a manner in which I hoped it would have been. I sincerely trust that those of your readers who have overlooked this appeal will kindly respond thereto. Up to the present time I have received the following liberal sums:—

Sir Prescott Hewett, Bart.	£5	5	0	Dr. O. Habershon ...	...	£1	1	0
R. Fitzroy Benham, Esq....	5	5	0	Dr. T. Lauder Brunton	...	1	1	0
Sir J. Lister, Bart. ...	5	0	0	Signa...	...	1	0	0
Thomas Smith, Esq. ...	5	0	0	Dr. Ewart	...	0	10	0
Sir James Paget, Bart. ...	3	3	0	E. J., Newcastle ...	...	0	10	0
H. Stear, Esq.	2	2	0	Lady Estcourt ...	...	0	5	0
Sir Andrew Clark, Bart....	1	1	0	H. A. Latimer, Esq.	...	0	5	0

I am, Sir, yours faithfully,

R. FITZROY BENHAM.

Abercorn House, Baron's Court, S.W., July 5th, 1886.

THE RELATIONS OF POOR-LAW MEDICAL OFFICERS TO BOARDS OF GUARDIANS.

To the Editor of THE LANCET.

SIR,—I am requested to inform you that at a Council meeting held on July 1st, 1886, it was resolved that a memorial should be forwarded to the Local Government Board, asking for a reconsideration of the case of Mr. A. B. Simpson, in reference to the late Poor-law inquiry held at the Birmingham Workhouse, when Mr. Simpson was called upon to resign through offending certain of the guardians, by not obeying a verbal order conveyed to him by the chairman of the visiting committee, which practice, if carried out, the council considered would lead to disaster and confusion.—I am, Sir, yours truly,

J. WICKHAM BARNES, Hon. Sec.,
Poor-law Medical Officers' Association, 3, Bolt-court,
Fleet-street, E.C., July, 1886.

"TOO BAD."

THE Hon. Secretary of the Home Hospitals Association presents his compliments to the Editor of THE LANCET, and begs to inform him, with reference to the paragraph headed "Too Bad," on page 58 of the issue of July 3rd, that (1) no general collection was made at the Home Hospital for Hospital Sunday. The patients were reminded of the day and were left entirely free to choose where they would send their contributions. (2) The staff do not attend St. Mary Magdalen, Munster-square; but on Hospital Sunday one of the patients sent her contribution to that church, when she learnt that there was no collection there for hospitals.

Dr. Pierce (Manchester).—Yes, so far as our space will permit.

EASILY DISINFECTED INSTRUMENTS.

DR. VON HEYDENREICH of Moscow has published a pamphlet showing how surgical instruments which are to be used for antiseptic operations can be made as far as possible of one piece of metal. He has planned pocket and field cases for general and military purposes in which all the instruments are so constructed. They are, it is true, rather heavy, the complete set for military purposes weighing about 30 lb. From the figures given, however, they would appear to be handy and suitable for the purpose for which they are designed. They are all made by Schwabe, of Moscow.

"THE VOLUNTEER MEDICAL SERVICE."

To the Editor of THE LANCET.

SIR,—In the annotation under the above heading in your issue of the 3rd inst., you state that so far as you know the bearer company now being organised under the able direction of Dr. J. W. Taylor, of Scarborough, in connexion with the 2nd Volunteer Battalion Yorkshire Regiment, is the first in the north of England. You will be glad to know that a similar effort has met with very gratifying success here, and that in this year's turn out for inspection as the nucleus of a bearer company upwards of fifty officers, non-commissioned officers, and men, all of whom possess ambulance proficiency certificates from the War Office, and half of whom are medical students connected with this College. The detachments did duty as a bearer company (not as regimental bearers) at the Gosforth Park review last month. The question of expense alone prevents immediate application for recognition as an independent company. Your annotation shows how dissociated the units of the Volunteer medical service are.

I am, Sir, yours faithfully,

W. P. MEARS,
Surgeon, Tynemouth Artillery Volunteers.

Newcastle-on-Tyne, July 6th, 1886.

IODOFORM SPRAY AND LOTION.

To the Editor of THE LANCET.

SIR,—I beg leave to offer an apology for my delay in replying to the gentleman who, in THE LANCET of June 26th, did me the honour of referring to my method of prescribing "emulsified" iodoform. His question was a very natural sequel to an error of your printer, who in the previous week had, by running into one the two words "tere" and "bene," made it appear that terebene was prescribed. The prescription should be as follows. ℞ Iodoformi præcipt., ʒss.; tr. senegæ, ʒi.; rub well and add water up to one ounce. If a more stable "emulsion" be desired, or if it be for use in a spray apparatus, an improvement may be effected thus: Shake the above and filter it through muslin; allow the filtrate to stand some hours in a test-tube; pour off the fluid, and to the deposit of iodoform that remains add fresh tinct. senegæ and fresh water as before. Most of the chemists in this neighbourhood have kindly given the matter some attention, and dispense the prescription very well.

I am, Sir, your obedient servant,

Charlwood-street, Pimlico, S.W. ALFRED LEACH.

MEDICAL BOYCOTTING.

C. T. K. P.—We think there can be no difference of opinion in regard to the case as stated to us. We agree with our correspondent. Nothing in medical ethics forbids a patient a reasonable and good-tempered freedom in the choice of a medical attendant. Every medical man learns to recognise such freedom and to accept it.

Mr. G. H. De'Ath.—We cannot approve of a medical officership of health being put up for "tender," and endorse the position adopted by the gentleman who "maintained a dignified silence."

TREATMENT OF CYSTIC GOITRE.

To the Editor of THE LANCET.

SIR,—In your issue of the 3rd inst. is the report of a case of cystic goitre treated by Dr. C. T. Vachell, of Cardiff, by "shelling out," but there is nothing in the account to indicate that the case presented unusual features, and therefore required exceptional treatment. Although the operation was successful, it would be interesting to learn why a cure was not effected by the usual method (injection of a solution of perchloride of iron into the sac through a cannula, and its retention secured by means of a plug until suppuration has taken place), but an operation selected which not only entails a greater risk to the patient, but which must leave a larger scar, even if no other disfigurement results.—Yours truly,

Mansfield-street, W., July 7th, 1886. T. MARK HOVELL.

METALLIC CIRCULAR CLINICAL THERMOMETERS.

To the Editor of THE LANCET.

SIR,—With regard to the query addressed to those who have and are using the above, I wish to say that after a trial of six months I can bear my testimony to their value both as regards their general accuracy and their compact and convenient form. They will lie nicely upon the surface of the body, and, as they are quite air- and water-tight and retain no dirt about them, are perfectly convenient for insertion (for clinical purposes) into the mouth or elsewhere.—Yours truly,

Ampthill, July 4th, 1886. W. ARNOLD THOMSON.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. James Braithwaite, Leeds; Mr. W. P. Mears, Newcastle-on-Tyne; Dr. David Newman, Glasgow; Mr. Sandiford, Dorchester; Dr. F. M. Pierce, Manchester; Mr. Walter Whitehead, Manchester; Mr. F. H. Hodges, Leicester; Mr. Leach, London; Mr. Cantlie, London; Mr. Howard Marsh, London; Mr. F. Sturges, Beckenham; Dr. Edwin Morris, Spalding; Mr. J. H. Douty, Powick; Dr. George Johnson, London; Mr. T. Forster, Daventry; Dr. Macintyre, Glasgow; Messrs. J. Allen and Son, London; Dr. Quinlan, Dublin; Mr. F. A. Southam, Manchester; Mr. Barwell, London; Mr. A. Mitra, Kashmir; Dr. Leslie Phillips, Birmingham; Dr. C. R. Drysdale, London; Rev. T. Hill, Finchley; Mr. F. Benham, London; Mr. Hawkins, London; Dr. Hood, London; Mr. Wilson, Billingshurst; The Hon. Mr. Wills; Messrs. Lee and Martin, Birmingham; Dr. Hewitt, Cheltenham; Messrs. Gibbs and Co., Ryde; Mr. Poole, Shrewsbury; Messrs. Whitehead and Co., London; Mr. Elliott, Carlisle; Mr. Maitland, London; Dr. Reid, Stafford; Mr. Armstrong, Newcastle-on-Tyne; Messrs. Wright and Co., Bristol; Messrs. Williams and Co., London; Messrs. Hulbert and Co., Stroud; Dr. Cambridge, Stonechurch, U.S.A.; Messrs. Pocock Bros., London; Miss Applethorpe, Worthing; Messrs. Squire and Sons, London; Mr. Wardley, Buxton; Mr. Pease, Darlington; Mr. A. Jones, London; Mr. E. East, London; Dr. Maclean; Messrs. Austin and Son, Bristol; Mr. Greenwood, Liverpool; Messrs. Smith and Son, Manchester; Mr. Stretton, Kidderminster; Messrs. Hall and English, Birmingham; Mr. Steinheil, Paris; Mr. Lancaster, London; Mr. Scott, Manchester; Mr. Sotheran, York; Mr. Thwaites, Bristol; Mr. Webb, Bury; Mrs. Rahn, Ipswich; Dr. Coates, Sirhowy; Mr. Stride, Brighton; Mr. Pinneger, Lee; Dr. Needham, Gloucester; Dr. H. A. Smith, Ealing; Mr. T. M. Hovell, London; Mr. E. J. Worth, Millbrook; X. Y. Z.; C. T. K. P.; H. M. W.; L. M. N.; M. D. C., Tunbridge Wells; J. T.; Spes.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Gunn, Chicago; Mr. Ampussy, Zanzibar; Mr. Hulme, Birmingham; Dr. Rae, Blackburn; Mr. Mays, Sheffield; Dr. Dearden, Lytham; Dr. Slade King, Ilfracombe; Mr. Crasweller, Highbury; Mr. Mayon; Mr. Gill, Tavistock; Mr. Morton, Brighton; Mr. Smyth, Hadfield; Mr. Allden, Southampton; Mr. Barnascone, Plymouth; Mr. Maule, Maryport; Mr. Hayward, Grantham; Mr. Knightley, London; Mr. McLachlan, Ayr; Dr. Hull, Highgate; Mr. Davis, Gateshead; Mr. Griffiths, Lampeter; Dr. Lyon, Fence Houses; Mr. Pierce, Liverpool; Miss Hunter, Manchester; Dr. Crookshank, Yaldham; Miss Carson, Burton-on-Trent; Dr. Jones, Ilford; Mr. Warren, Royston; Mr. McGregor, Huddersfield; Dr. Wall, Cranleigh; Mr. McClean, Harpingdon; Mr. Logan, Glasgow; Dr. Harkin; Mr. Wright, Halifax; Mr. Ellis, Birmingham; Mr. Draper, Almondbury; Mr. Pratt, Cardiff; Substitute; F., Liverpool; Alpha, London; J. B., Brighton; Medicus, Norwood; Julius, Kidderminster; Shati, India; X. Y. Z., Matlock; Fides; X. X.; Z., Maidstone; Medicus, Finsbury-park; L. B.; Surgeon, Stamford-hill; Medicus, Birmingham; Physician, London; M.D., London; P. Q. R.; D. C. S.; Experienced; Reflex, Leicester; Medicus, Wigan; M. A. C., Cavendish-square; B. D., Dover; Anson; Surgeon, Islington; Medical, London; Matron, London; M. F., Notts; M.D., Pentonville; Venta, Walton; Medicus, Ealing; J. H., Spennymoor.

Manchester Guardian, Catholic Times, Haddingtonshire Advertiser, Advocate of India, Belfast News Letter, Measures not Men, Belfast Northern Whig, Sussex Daily News, &c., have been received.

Medical Diary for the ensuing Week.

Monday, July 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, July 13.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Wednesday, July 14.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department, Tuesdays and Fridays, 9.30 A.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.

Thursday, July 15.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, July 16.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 17.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year	£1 12 6	Six Months	£0 16 3
TO CHINA AND INDIA		One Year	1 16 10
TO THE CONTINENT, COLONIES, AND UNITED STATES		Ditto	1 14 8

Post Office Orders should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable at the Post Office, Charing-cross.

Notices of Births, Marriages, and Deaths are charged five shillings.

Cheques to be crossed "London and Westminster Bank."

ADVERTISING.

Books and Publications (seven lines and under)	£0 5 0
Official and General Announcements	0 5 0
Trade and Miscellaneous Advertisements	0 4 6
Every additional Line	0 0 6
Front Page per Line	0 1 0
Quarter Page	1 10 0
Half a Page	2 15 0
An entire Page	5 5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.